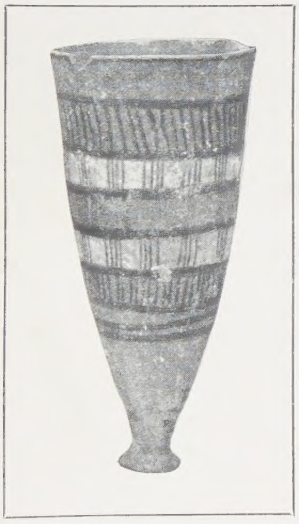
LEVEL ONE

ANCIENT EGYPT AND THE EAST

1933. MARCH, JUNE. PARTS I, II.



CONTENTS.

1. EGYPTIAN SHIPPING.
SIR FLINDERS PETRIE.
2. NOTES ON SOME INDIAN AND EAST IRANIAN POTTERY.
PROF. V. GORDON CHILDE.
3. THE PHARAOH'S THIRD TITLE.
DR. M. A. MURRAY.
4. EGYPT AND THE CAUCASUS.
PROF. V. I. AVDIEF.
5. RARE SCARABS.
SIR FLINDERS PETRIE.
6. CHINA AND EGYPT.
DR. M. A. MURRAY.
7. A TEXTILE FROM THE HOOD COLLECTION OF EGYPTIAN ANTIQUITIES.
MRS. G. M. CROWFOOT.
8. RHYMES AND RAIN CHARMS.
DR. M. A. MURRAY.
9. UNITY OF MAN, III.
MRS. L. B. ELLIS.
10. REVIEWS.
11. JOURNALS. (SEE INSIDE COVER.)
12. NOTES AND NEWS.

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EDITORS: PROF. SIR FLINDERS PETRIE, F.R.S., F.B.A.
DR. M. A. MURRAY.
MRS. D. MACKAY, B.A., B.Sc.

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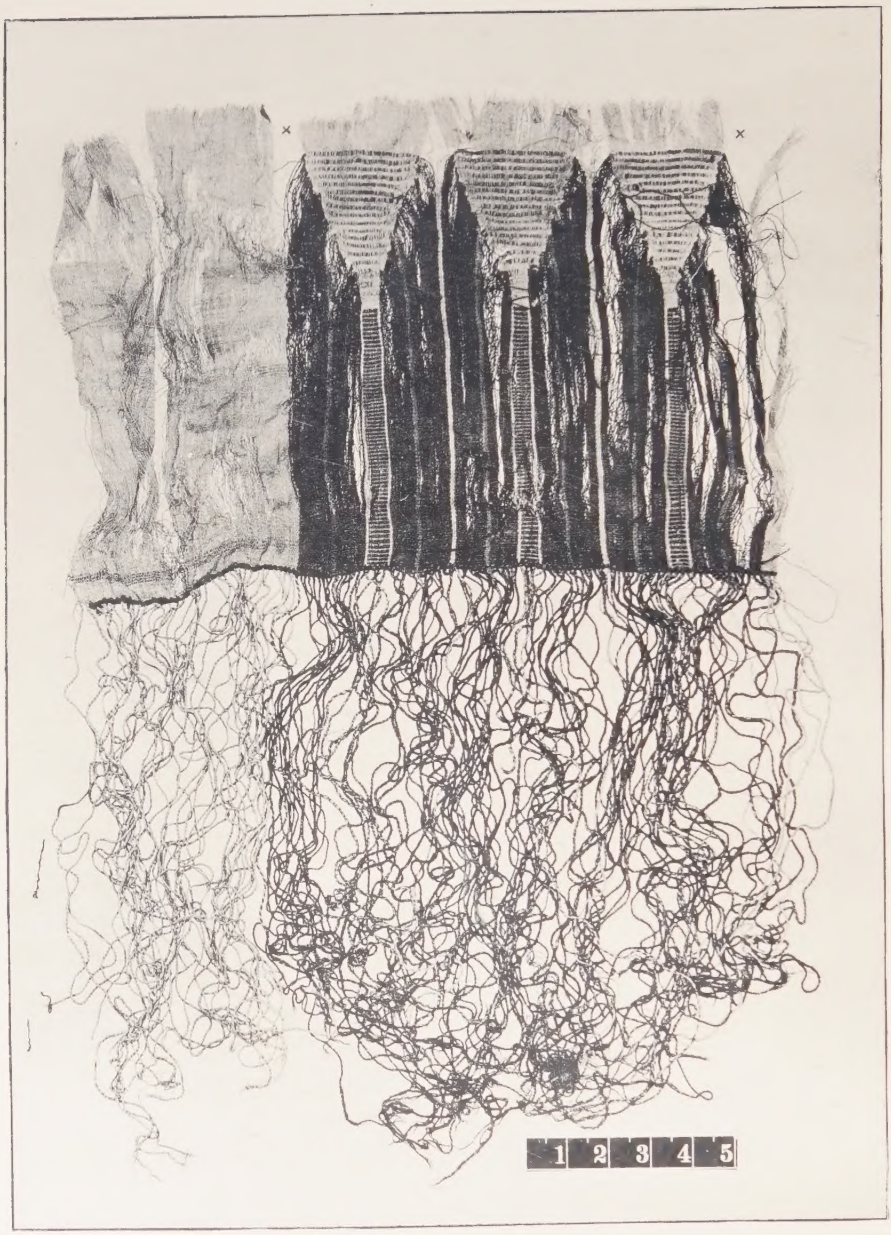


A Textile from the Hood Collection of Egyptian Antiquities.

(Page 43)

ANCIENT EGYPT AND THE EAST

EGYPTIAN SHIPPING.

Outlines and Notes.

The Conditions.

Egypt is above all things a country for boats. As it consists essentially of the Nile and its banks it has an unrivalled waterway; this is so sufficient, so monopolising, that down to fifty years ago there were no continuous roads, only the Nile, and tracks from it across the fields up to the desert. Not only was this a matter of facilities of water traffic, but also of sheer necessities, as the land was flooded for a quarter of the year from rock to rock on either hand, the villages stood up amid the flood as islands, and the only communication about the country must be by water. All these conditions made the sailor and ferryman therefore the most prominent types of the country.

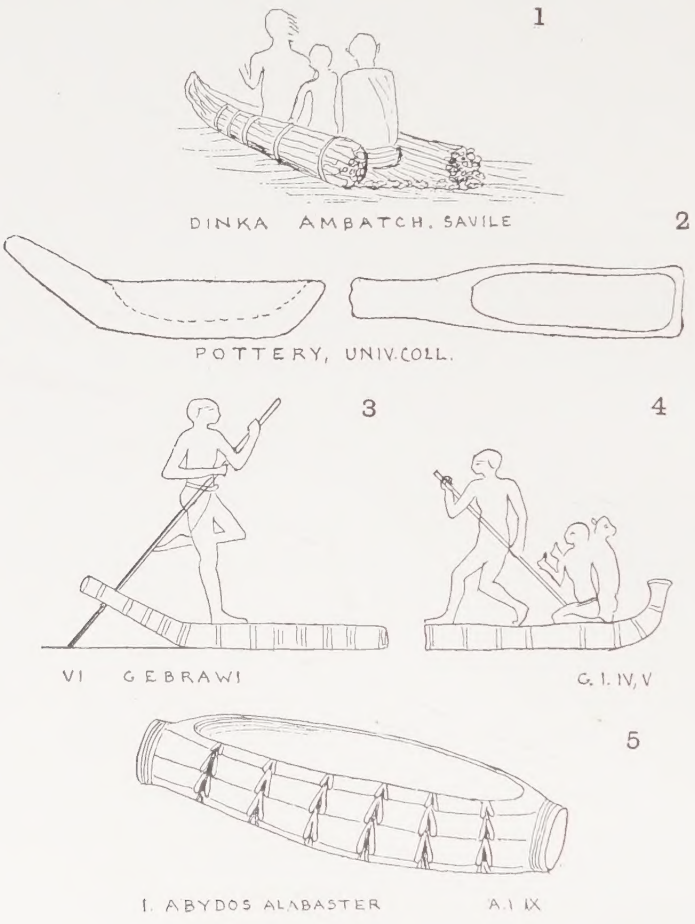
This habitual life has led to more familiarity with water than is seen in any other country of the Mediterranean. The Egyptian thinks it natural to bind together some dried reeds, and extemporise a raft enough for a couple of people. In a climate where the river is usually warm and clothing is slight, the need of a watertight boat does not exist for persons, and only perishable goods require more consideration.

It is probable therefore that floats and rafts have been used by the varied peoples of Egypt long before they left any trace of a continuous civilisation. The vulture that sails down through the air to float on a carcass in the river would be an incitement to river transport which any savage would understand. The beginnings that we recognise only show us what was learnt after ages of experiment on getting over the water. The earliest ritual of the deceased king represents him as hailing the ferryman, like Charon, to take him over the water of death to the blessed land; but, if there be no ferry, then there is a couple of reed floats of the sky, or heavenly ocean, to bear the king safely to his desired haven. When we come to collecting the earliest figures of boats of the Nile, we are then only stepping into the midst of a mixture due to many experiments and ages of change. There is nothing really primitive about it, but only fossils

of many primitive types. We must not expect to find that the successive changes of transformation grow age by age in order; for that all happened long before anything that we know; they were going on all together, according to the needs and means of every class. The poorest beggar riding on his reed float, and the great man in his dahabiyeh, went on side by side. We must not be astonished at finding such a mixture anciently, any more than reed floats being jostled by steamers now.

Materials.

The use of inflated skins, or gourds, or basket-work coracles, does not appear in Egypt, though they were—and are—so usual in Babylonia. Papyrus



abounded in the unreclaimed Nile swamps, even during the pyramid period, and that provided the standard boat-building material. A spongy stem which held much air, and yet could be crushed and bent without breaking across, was an ideal material. The continuance of its use is seen by the export of papyrus prepared for writing, which continued into Byzantine and Early Arab times. It was exported to Europe in the VIIIth century, and was in common use for Egyptian receipts in the Xth century. Its disappearance from Egypt, while it still grows to the north in Sicily, and to the south in the Sudan, seems

due to closer cultivation on the Nile in the last thousand years. The large size of papyrus boats is astonishing; some over thirty feet long are figured. Yet these were distinctively of papyrus, and it so continued in use till late times. Isaiah writes as a matter of course of envoys from Egypt coming to Palestine "by the sea, even in vessels of bulrushes upon the waters", which shows that as late as the VIIIth century B.C. the sea passage of about 100 miles from Pelusium to Gaza was performed by officials in papyrus ships.

Concurrently with papyrus, timber began to come into use, and it is difficult to say where the timber began to determine the form and size. Long timbers or poles appear as cargo on the ship with two cabins, painted on the earliest class of figured pottery (fig. 48), the white line on red, at the beginning of the Amratian age. Tripod masts, or a plain mast supported by a straddle mast, appear in a model of an early papyrus boat (fig. 45), before the Semainean age, now at University College. Certainly by the time of Seneferu wood had to float off the stocks, without support at the ends out of the water. To meet this risk the ends were tightly lashed together by a long brace of ropes, raised on struts so as to pull the ends upward (fig. 60). By twisting these ropes the tension was increased until it just took up the weight of the two ends, free of the stocks. Thus there was no danger of the boat breaking its back when it came to floating. When free in the water the tension could be gradually liberated, making sure that there was no further strengthening necessary at any part. No such brace is represented on any boat that is finished and in action; but it was retained on the large cargo vessels, especially for sea voyages, to resist the inequality of support due to waves. Nonsense has been written about this brace being intended to pull the boat into a concave form; any such distortion of the built boat would ruin it; the only function of the brace in boats was to preserve the built form without change when subject to different stresses on launching, or when on large waves.

Construction.

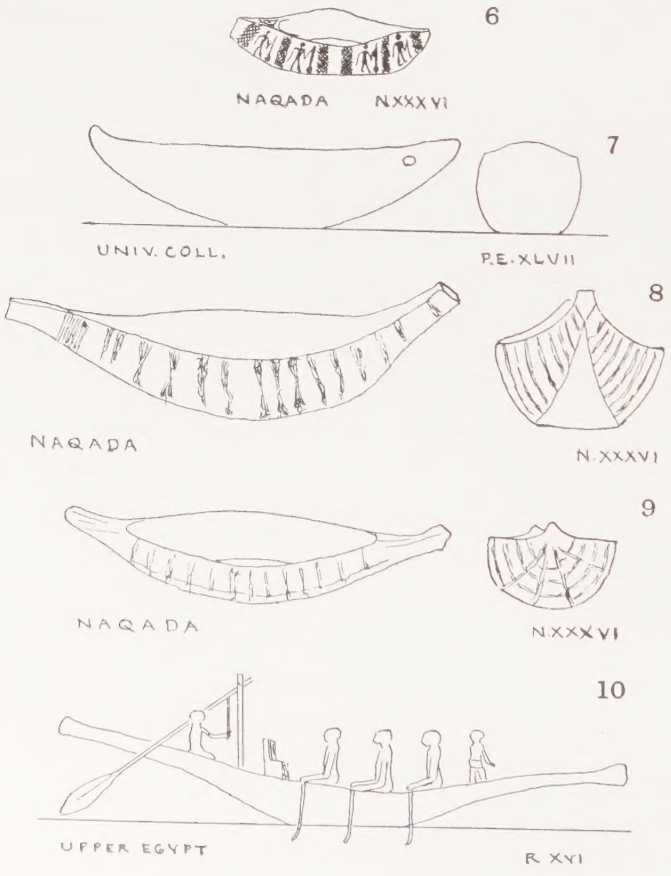
The method of construction was entirely different from that of modern times. There was no clinker-built work with strakes overlapping down the sides; it was all carvel built with strakes laid edge to edge, flush on the faces. A middle beam ran along the axis, but it did not project as a keel. There were no ribs, but the whole structure was held together piecemeal by dowels and ties. Thus the whole principle of building descended from the lashed bundles of reeds for a papyrus boat, whipped together by cords, as in fig. 4, from which the idea of little dovetails all over the surface was derived. In the large boat over 33 feet long and 7 feet wide, found at Dahshur, the axis beam was in three pieces, joined together at the ends by dovetail tenons let in. On each side of this beam irregular strakes were added, cut as the wood allowed; attached to the beam, and to each other, by square dowels in the edges, and dovetail tenons on the inner face of the boat. The same system continued up to the top rail. Copper bands were added on the top surfaces liable to wear. The thwarts were all let through the top strakes below the rail, and pinned in by a dowel passing through the thwart into the board. The deck planks were pinned to the thwarts by small dowels. The boatbuilding description by Herodotus refers to the native acacia, which was too hard for much mortising, and was attached solely by large square dowels in the edges of each piece. The result of all this building was to produce a spheroidal sheet of timber, attached all over by the edges, and floating like a saucer.

Types of Boats.

The simplest float is still in use in Egypt to-day, for which the stems of maize (durra) are used, the papyrus being extinct there. Bundles of stems are lashed up, and three such bundles are laid side by side, lashed together, and kept flat by some sticks fixed across. The passenger sits on this raft, about 13 feet long and $2\frac{1}{2}$ wide, and paddles himself across the river. This is described as the *ramūs* by Somers Clarke (see *Ancient Egypt*, 1920, pp. 43, 51).

A more structural raft is the *ambatch* on the Upper Nile. Here a floating platform is fenced on each side with a bundle, to keep waves from washing across (fig. 1). Another form of this is a flat platform running off to a raised point at the end (Schweinfurth, *Au cœur de l'Afrique*, p. 66). The raft with a projecting end begins in the Badarian age, say 7000 B.C. (Brunton and Caton-Thompson, *Badarian Civilisation*, xxiii, 33), and this is more developed in the pottery model (fig. 2), where the narrow raised end would serve as a landing plank across the Nile mud banks. This explains the type in the VIth dynasty (figs. 3, 4) where it is pushed along by poling, and serves to carry a boy with a young calf on his back. The amount of raft below the waterline is not seen.

The simplest closed raft with sides to fend off the waves is copied in the alabaster model (fig. 5). This shows well the detail of the basket-work method, of binding up each bundle catching through the next bundle. Though this object may have been used as an ornamental tray, it is clearly copied from an actual structure.



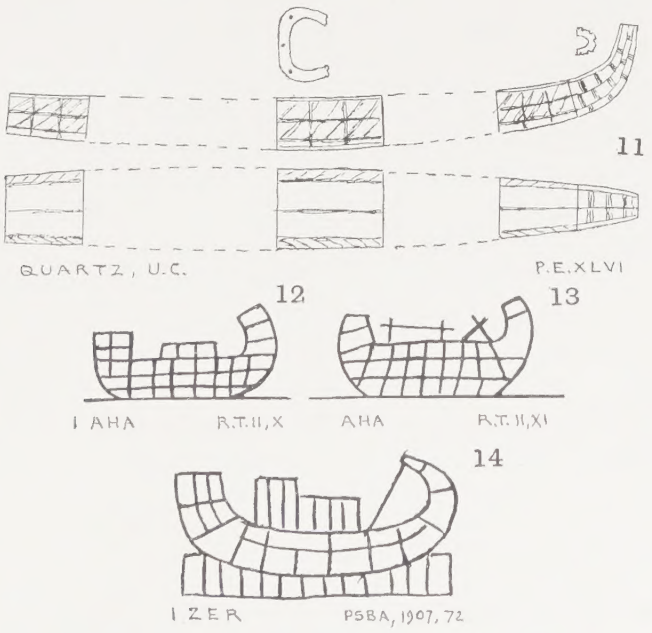
The next step in development was to narrow the ends into a cut-water, in order to improve the mobility of the craft. In fig. 6 the figures of men holding oars, painted on the sides, were doubtless to confer spiritual rowers on the boat for the spirit of the deceased in the tomb. This is then distinctly a rowing boat for several men.

Another model of much the same shape (fig. 7) is of plain pottery. The wide flat bottom of the models 7, 8, 16, 17, is probably copied from actual craft, retaining the flat-raft type as a base, for that was the most suitable for giving flotation in shallow marshes.

The vertical markings on 8 and 9 are regarded by Reisner (xvii, xviii) as belonging to wooden boats because of the thin sides, the marking therefore indicating ribs or binding. In fig. 5, however, we see a side unquestionably of papyrus bundles, built up one on the other. So long as flotation was due to a raft bottom, and the sides were only fenders and had no hydraulic pressure, they might be almost like matting on edge. The painted lines in figs. 8, 9 would then show the lines of binding which held the pad of bundles in order.

Now we can see the functional use of the raised ends of the boat. So long as the lines of the side were horizontal, the mat wall would sink down ; but when the ends are raised the flexible wall of side hangs from them in an easy curve, high enough in the middle. Though the droop of the top of the side in fig. 9 is but little, the long line of tie half way down reaching up to the beak would sustain the side.

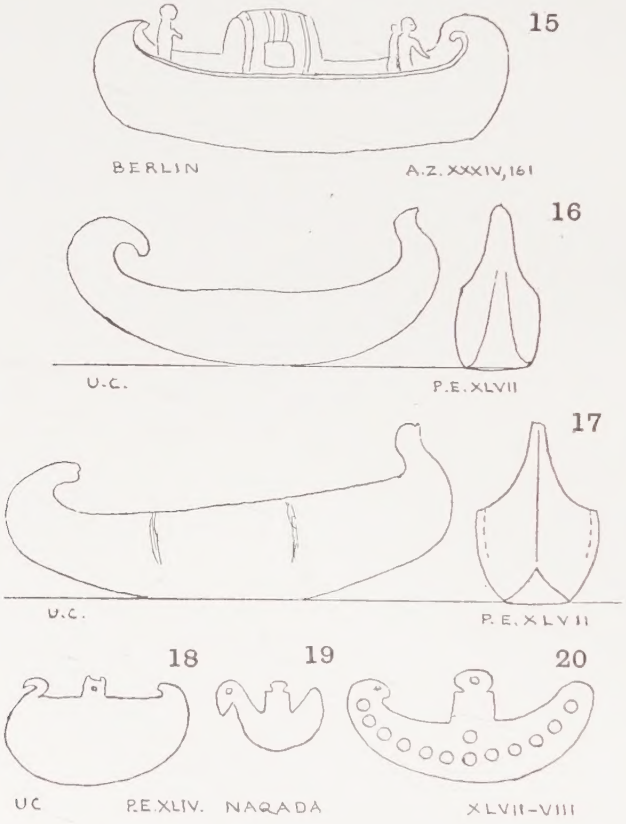
In fig. 10 is another type of a narrow boat, a sort of racing boat, evidently built for speed, required by a master and his crew. The long ends would (like that of fig. 2) serve as a landing plank.



The construction of a very narrow boat (at least 10 to 1) with raised end is well shown in the quartz model, fig. 11. This was made of separate pieces of milky quartz, carved, covered with green glaze, and connected by wire through holes in the edge. The joints were covered with sheet gold, adhering to the fused glaze.

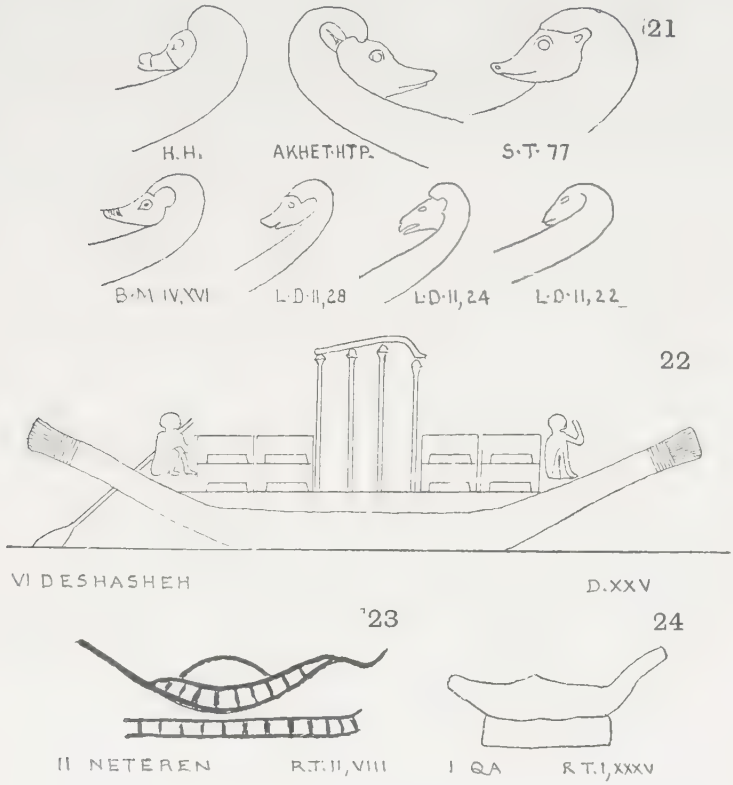
The detail of the section is instructive; the sides were fairly thick bundles of papyrus, lashed diagonally around; near the end each bundle was tightly bound around at close intervals to stiffen its position; when placed together the hollow interior of the boat was continued up to the tip. There was no general tying round all in one bundle at the end, as in 5. The structure was essentially a long float on the water, with raised ends to stiffen the sides.

In the forms 12 to 14 we have the usual freight boat of the Ist dynasty. The lines upon them are not necessarily structural, as such appear on water and on buildings; they express the surface of a solid. But in 14 the detail is observed of the lines curving up to the ends, agreeing with the structural detail of the side being maintained by suspension from the ends. The height of the ends would be useless otherwise, or merely a waste of weight and material.



The models 16, 17 show how thin the sides were relatively; also the flat bottom derived from the papyrus float. The curvature, again, would keep the sides taut, as by catenary suspension. This curvature would be only practicable with papyrus construction, such as we see in 45. The smooth flowing curves of the form are unlike any woodwork where thin boards are not to be had. How difficult it was to saw thin wood is painfully seen in the coffin boards of early times; the direction of the saw goes all round the planes of the cut (see *Zurkhan* I, xxiv), for the saw was only a large copper knife notched on the edge (*Tombs of the Courtiers* V, 20, 22). With such tools and results it is useless to imagine thin sawn planks like ours to have been available for boat-building.

From the curved and raised ends of such forms there seems to have been copied a type of slate palette (18), which transforms the bird-like end of 16 and the curve-over of the tail. This was then copied as a magic or amuletic form of a bird in 19, and the idea was lost when copied as in 20.

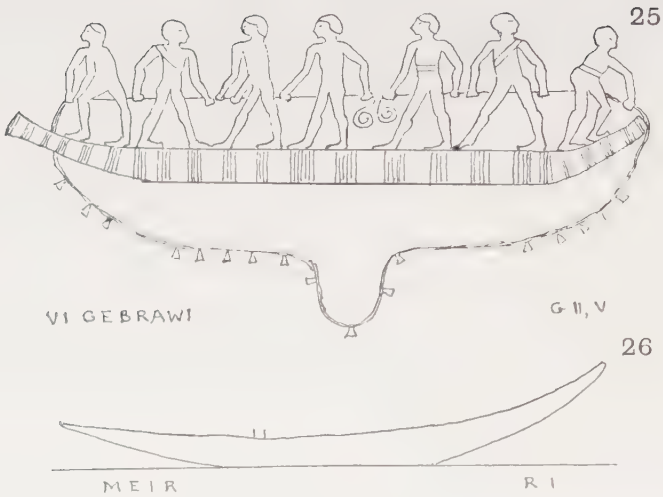


In connection with the head ornament of a boat in the pre-dynastic times, there may have originated, by the IVth dynasty, the head often carved at the end (21). This is looking inward to the load, as the mummy on the funeral boat. The earliest example, at Hemamieh, of the IVth dynasty, is unmistakably a pig's head, but later it was modified more like a sheep. The connection of the pig with Set (both of them abhorred by the Horus tribe) links this fashion with Set, who was guardian of the ladder for the ascent of the dead to the sky. This is an entirely different eschatology to the Ra worshipper's belief in joining the boat of the sun.

The loaded freight boat (22) is shown with a long base on the water. By the size of the catafalque which held the coffin, the vases of offerings piled fore and aft, and the two boatmen, the whole would be about 30 feet long. It has a raised deck or platform to preserve the load from wet, and that suggests that the whole boat was of papyrus, a float and not a watertight vessel.

The splay form for loads is seen also in 23, 24, of the Ist and IInd dynasties. The raised ends again suggest that the sides hung from them.

Turning now to the fishing boats, a very long, narrow form (25) was required for taking in the long seine net without jumbling the fish. The outline of the net with floats along the edge is figured full of fish. Pulling up the ends to the

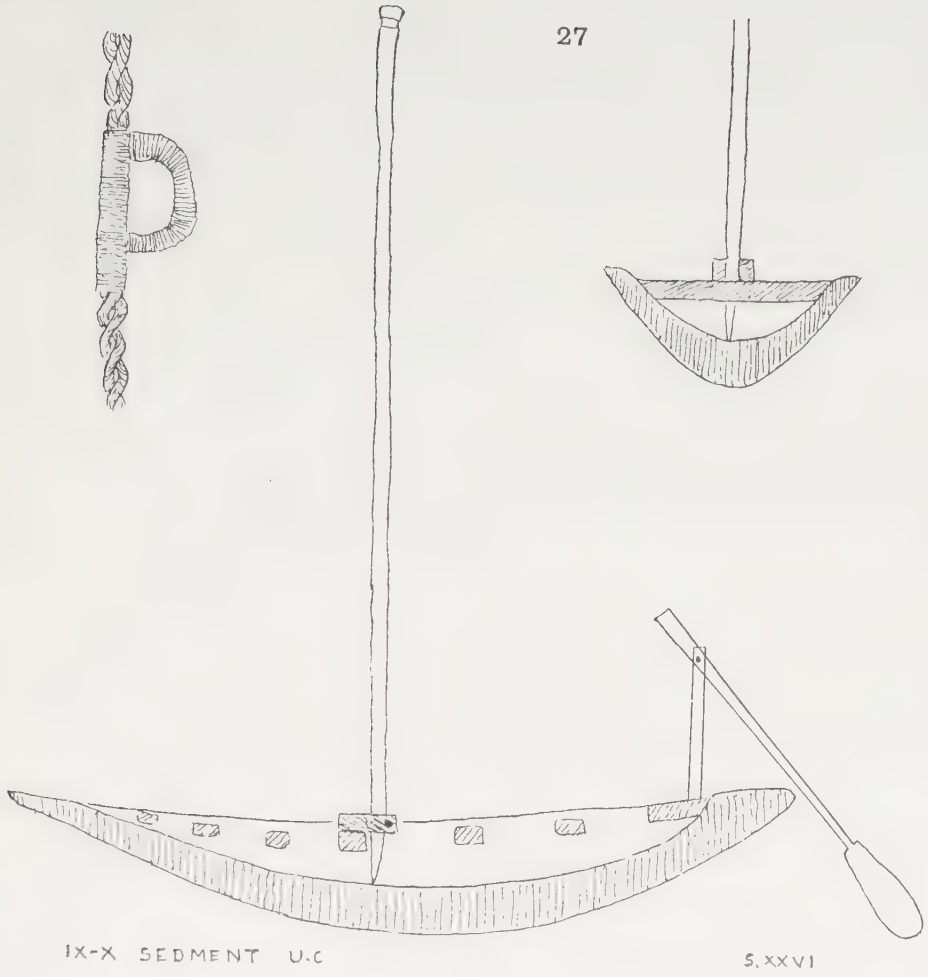


two ends of the boat would be the first step toward lifting the net and fish into the boat all along.

The low boat (26) is probably for taking in a fishing net, also the model 27,

for with it was the bundle of mast, yard, cordage, and fishing net. The sections of 27 are opposite. Whether the actual boat was of wood may be questioned; in favour of it is the ridge below instead of the flat papyrus float. The thwarts are not let in, but only pegged on at their ends. The form is closely like that of the large wooden boat found at Dahshur. The mast pole is trimmed below, so that it will jam tight in the square grip when the end touches the bottom of the boat, thus there is good reason for that being its position. The large quantity of twisted fibre rope is too much broken to be restored. One piece is carefully payed with thread to form a hand grip. Two other pieces are attached by thread for several inches.

Passing now to the ceremonial boats, the characteristic form for the funeral boat is ⌒, with a strange bend in the raised end of the stern. This type was that of the great ship of Snefru (30) which was 160 feet long; and also of the

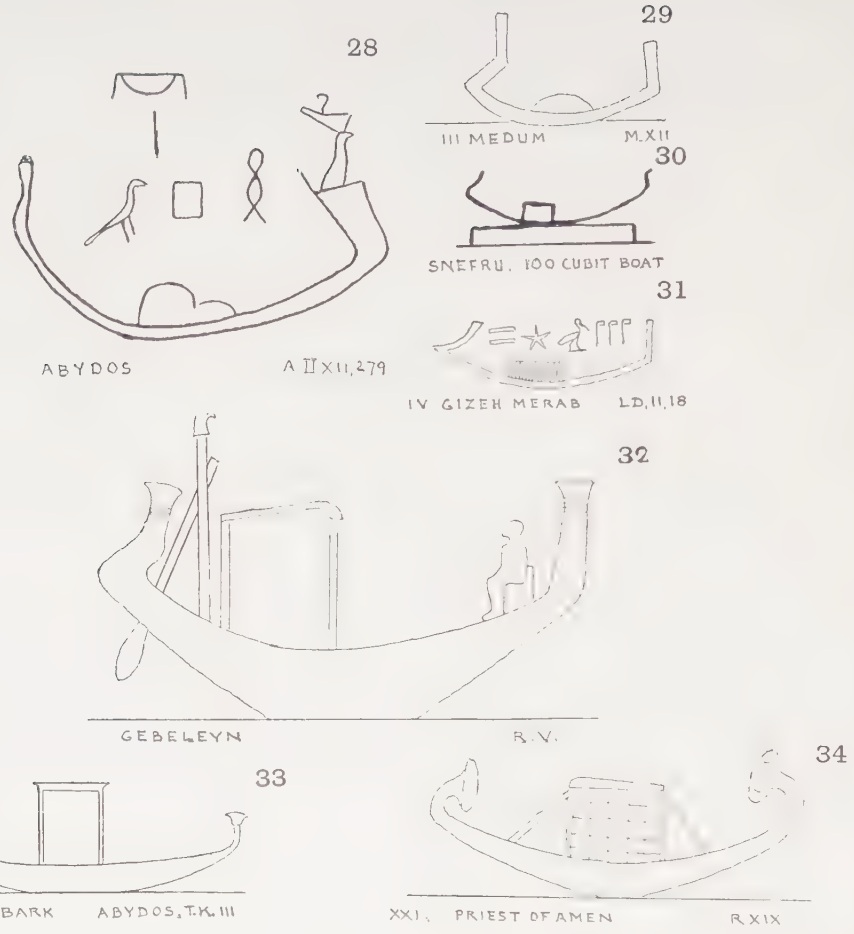


divine boat (31). It also appears with the title *oz mer* (conservator of canals) in the tomb of Rahetep (29). This type appears in an earlier form in the Ist dynasty (28) on a bowl of crystalline quartz, which came from the "gold" chamber of the royal burial, and belonged to the *hepu* funeral boat there. On the prow is the royal falcon crowned; the stern has much less inflection than in the IVth dynasty.

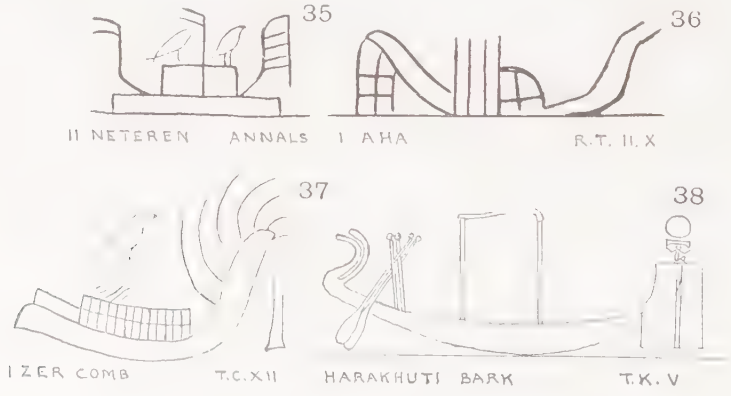
There is always the load on these boats; on 31 it is free of coverings and appears as a chest or box coffin. On 32 the catafalque is over the mummy which is omitted here as hidden by the mourners. Much later there is the Osiris boat at Abydos (33), the structure of which is copied here. The flower endings of the terminals are changed still more on 34, the funeral model boat of a priest of Amen.

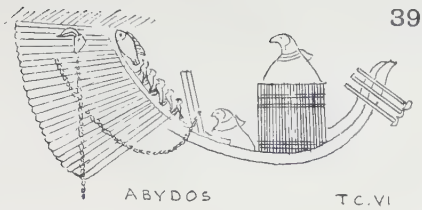
Another ceremonial boat was that of Har-akhuti. The most explanatory form is that on the Annals in the IInd dynasty (35). There the falcon of the rising, and that of the setting, sun have each a stand, separated by the *neter* sign. The prow has a long hanging over it, the stern forks in two. Both of these features continued, and are best shown at Abydos (38). There the stern is doubled, and the hanging over the prow is divided in two.

The earliest example is under Aha (36), where the stern is divided. A variant



of this boat is on the comb of Zer (37), where there is a complex lading and no raised stem. Another variant is 39, the bark of Sokar, where the falcon is mummified, and is rowed by falcons at the oars, perhaps the sign of the deified king as serving him. Another form of Horus bark is 40, of Hor-khenti-kep, Horus in the *harim*; the paw form of *kep* is early, as in Hemamieh XXI. A strange form is 41, on the palette of Narmer. The upright prow is that of the ships of the dynastic race (55, 56); the border along the whole vessel, and the objects in the boat still need explanation.

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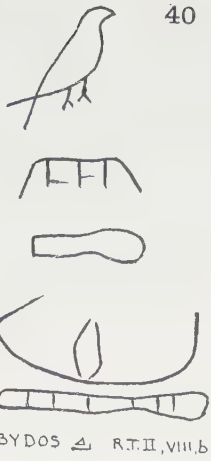
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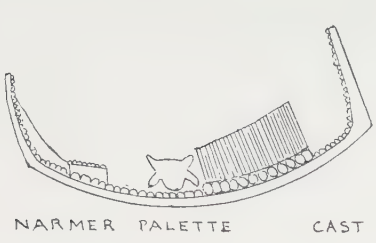
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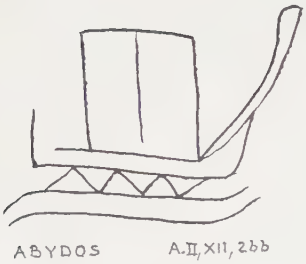
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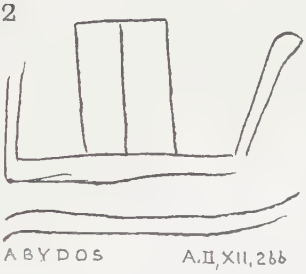
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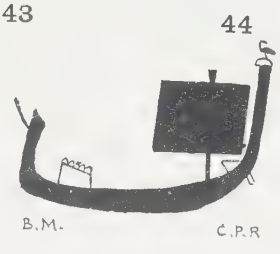
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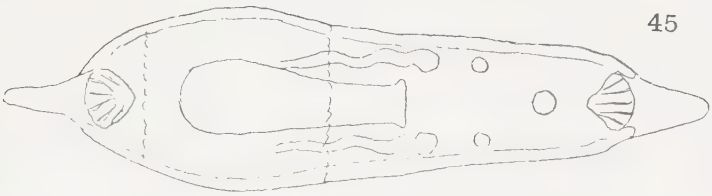
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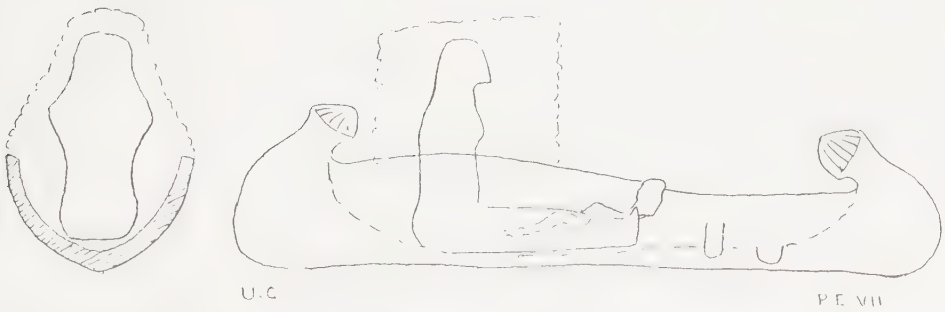
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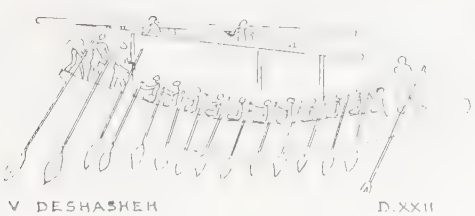
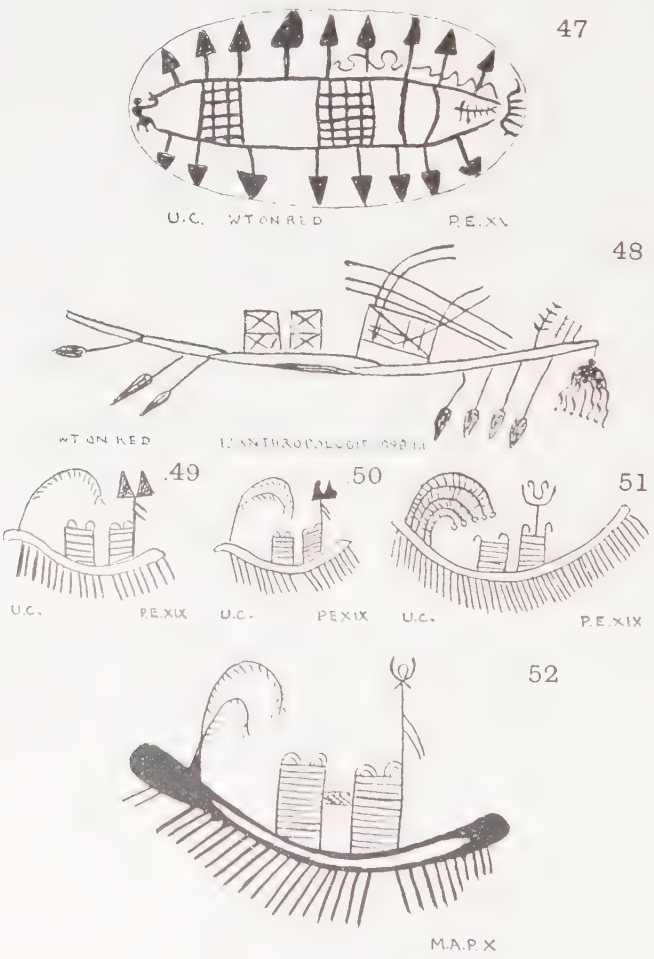

46
V DESHASHEH
D.XXII

Sails.

The same upright ends of the boat in 42, 43, 44 again belong to the dynastic race (see 55, 56). Whether the objects on 42, 43 are a shrine or load, or a square sail and mast, is uncertain. But there is no doubt that 44 has a square sail. That masts and sails were used in predynastic times is proved by the pottery boat (45) ; this has a very crude figure of the deceased seated, and before it a large pole for a mast, and a lesser pole on each side for a straddle mast to hold up the main mast. The straddle type of mast was essential in a papyrus boat, in order to put the weight on the depth of the sides. In the boat are serpents, one on each side of the figure. The ends of the papyrus are bound around to form a sort of rosette knob at bow and stern. Over the figure is an awning of fibre, which appears in the photograph 88 (see next article).

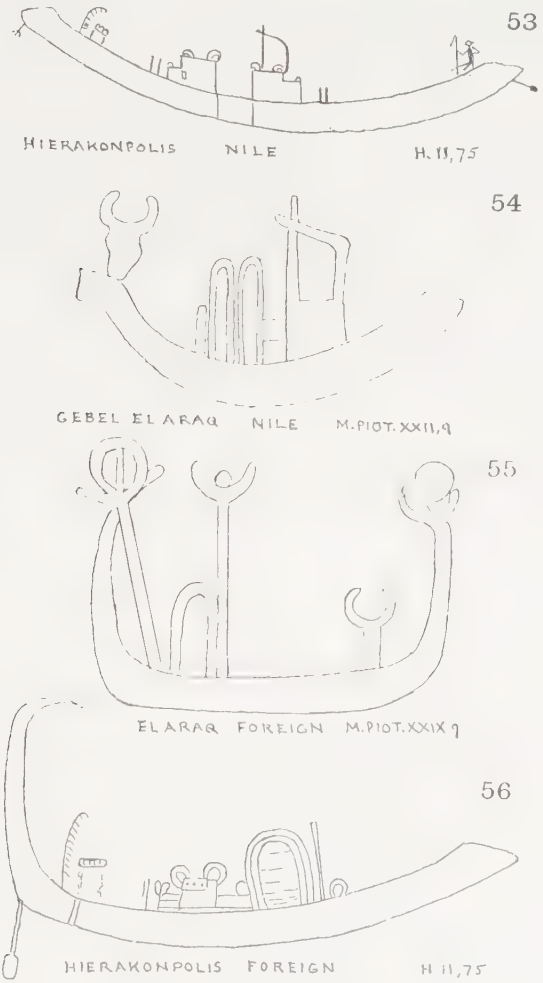
The straddle mast could be taken down when descending the Nile, and placed on posts, as in 46. Where it was very heavy, as in the ocean-going ship of Sahura (78, see next article), it was lowered and rested on the steering posts. There are other examples of the straddle mast in 64, 65 (in next article), but it seems to have been disused in Egypt after the Old Kingdom. In Syria, it was retained together with the single mast until the XVIIIth dynasty so it seems likely that the type on the papyrus boats originated in Syria.



Besides all the forms that we have reviewed, there was a type of double cabin boat, from early times until the dynastic age when it ceases. They are found in the oldest paintings known, of the beginning of the Amratian Age, painted in white lines on red pottery. The oldest example of a plan that is known is the painting in the hollow of an oval bowl (47). The outline of the boat has on it two squares covered with cross lines, in the usual position of cabins. In the bows is the branch as usual; outside hangs the bundle of rope, like that hanging below the prow of 48, for a fender in case of collision. At the stern is the steersman seated, as on 53. Around the vessel are triangular oars projecting, and along the larboard side there is a ripple of water below the oars. Nothing is forgotten.

Another painting of the same age, in white lines on red pottery (48), has the two cabins, and also a sort of crate of lumber forward, with poles stacked up. The prow branch and fender are both clear, but there is no steersman, and only seven oars in all.

Much later than these are the abundant paintings of ships on vases of the Gerzean period (figs. 49 to 52). These are almost all of the same type. Rarely a bridge joins the two cabins (52). The main variation is in the branch; this



is single (49) on early boats, then doubled (50), and on coarse, debased, drawings it is made into a grove (51). These ships have usually a gap between the fore and the aft oars, which properly coincides with the space between the cabins, the clear way left for entering the boat. At the back of the cabins is the ensign of the port to which the ships belonged.

The same patterns of ship appear on the wall paintings of Hierakonpolis (53). There at the bows is the fender hanging, the branch and the seat for the look-out. The two cabins are amplified, and one has a window, the other a shelter on the roof. The steersman is seated at the stern. On the ivory carving of the conquest by the dynastic people there is much the same ship for the Egyptian (54). The top shelter is there, but the fore-cabin is changed, like the invader's cabin, and there is a bull's head as amulet on the prow, but no branch.

The ships of the dynastic invaders (55, 56) are quite different from the above. Both have the high prow, and 55 has a high stern post also. What the objects may be on the prow and stern we cannot interpret. There is a round-topped cabin, and this may probably account for the engraver, who was an invader, placing a round-topped cabin on the native ship. The drawing 56, done by a native of an invader boat has the round-topped cabin, but also the square native cabin and the branch and look-out. Probably both parties have put in details which really belonged solely to their own side ; but the broad distinction of the two types is very marked, both on the native version at Hierakonpolis, and on the invader's ivory carving.

FLINDERS PETRIE.

(*To be continued.*)

NOTES ON SOME INDIAN AND EAST IRANIAN POTTERY.

The discovery of the Indus civilization may eventually rank as the most dramatic and revolutionary contribution to the history of human culture made in the current century. In the IIIrd millennium B.C. the Indus valley was the seat of a complete urban civilization, fully the peer of those of Sumer or of Egypt in the Pyramid Age. The newly discovered centre of city life was already in contact with Mesopotamia, and thus directly contributing to the formation of the cultural tradition which we inherit. Moreover, its civilization was based upon the same fundamental discoveries as the Sumerian and Egyptian, but these were elaborated in a thoroughly individual and, indeed, already Indian way. In the following notes on certain aspects of early Indian ceramics I hope to illustrate the last two points—to emphasize the thoroughly individual and specialized character of the newly discovered civilization and to define the problems raised by its underlying kinship with the more familiar cultures of the Near East. But at the outset I should like to thank the Director-General of Archaeology in India and his Department, through whose courtesy alone I have been enabled to handle and study the material here described.

To prove in the first place the underlying unity in ceramic technique between India and Mesopotamia it suffices to refer to an illuminating study by Dr. Mackay. He has pointed out [1] that several technical processes employed to-day by the village potters of Sindh and the Punjab can be traced already among the prehistoric potters of Mohenjo-daro,[2] that the special type of wheel and other peculiarities of the modern craft are common to Sindh and the Punjab on the one hand and Mesopotamia on the other, and [3] that certain distinctive craft-tools, notably a very peculiar form of stopper now termed a *dhakni*, used alike by the modern and prehistoric Indian potter, was also current at Jemdet Nasr in Mesopotamia in the IVth millenium B.C. There is, accordingly, a community in the tradition of the potter's craft between Mesopotamia and Sindh-Punjab; very probably this community goes back into prehistoric times. This probability is enhanced by my observation that the peculiar grey ware from the Indus sites is identical technically with that current in Mesopotamia during the Uruk period.

By the middle of the IIIrd millennium, however, this common tradition had been given a very specialized and individual expression in the Indus valley. A brief consideration of the peculiarities of the finer Indus fabrics will suffice to demonstrate this. The most distinctive is a hard-fired pinkish ware, covered with a red slip or wash. The grey ware already mentioned is the technical counterpart of the pink, owing its colour principally to the reduction of the iron oxides in the clay from the ferric to the ferrous state, as established by Khan Bahadur Sana Ullah's analysis. It, too, may be covered with a dark grey slip or wash corresponding exactly to the red slip on the commoner pink ware. I may remark that the pottery bangles show precisely the same variations between red and dark grey.

The highly specialized character of the Indus pottery is most conclusively demonstrated by the decoration of the commonest red fabric. This attests a definite artistic style, self-conscious and sophisticated to a degree unparalleled in early ceramics before the Middle Minoan period in Crete.

FIG. 1. LARGE JAR FROM AMRI. $(\frac{1}{5})$

The essentials of this classic style have been already outlined by Mackay in his masterly report,[4] but may none the less be recapitulated here in a few words. The designs are commonly executed over the aforementioned red slip in a black paint applied with a stiff "brush." They either cover the whole surface of a vase continuously, as in fig. 1 from Amri, or at least fill broad zones and panels. The designs consist either of stylized vegetation—trees, shrubs, creepers, but rarely flowers—or of repetition motives; by the latter term I understand motives that can be repeated indefinitely in any direction. Exceptionally, zoomorphic elements are introduced, generally peacocks or other birds peeping out among the foliage of the vegetation designs. In a random sample of 300 sherds from Mohenjo-daro, I found that approximately 35 per cent. of the designs were based upon vegetation, while 65 per cent. were made up of repetition motives.

The most perfect of such is the intersecting circle, and actually over 62 per cent. of the sherds examined were decorated either with intersecting circles or with scale patterns. The circles have often been very irregularly drawn, as the exact copies in fig. 2 indicate; the brush, indeed, seldom traces a complete circumference, but more often loops and arcs. Yet there are sherds on which the circles have been lightly scratched in advance with the aid of some sort of compass to form a guide to the painter, so that the intention of the artist is indisputable. By embellishment in the manner illustrated in the figures, the

intersecting circles yield rosettes, stars, and other figures, and, by combination with chequers, what Mackay calls the "stretched hide" pattern.

Chequers and triangles also yield repetition patterns, but were comparatively seldom thus employed by the Indus potter; only 7 out of the 300 sherds from Mohenjo-daro were thus decorated. When thus employed they are always completely alternated, so that, for instance, a blank triangle has a hatched one on each of its three sides. More complicated patterns based on the cross, T-figures, wavy lines, and a heart-shaped motive were similarly employed; their use is further illustrated by shell inlays and gem engraving. Ribbon or zone patterns occur only as borders; most characteristic are what Mackay terms roundel and chequer borders, but zig-zag and wavy lines, hemispheres, triangles and the hatched guilloche also occur.

Such zone-patterns are rather more independent on a rare fabric, in which the ground is a pale buff or creamy slip. This fabric may perhaps be an import at Mohenjo-daro. It is sometimes decorated with bold intersecting circles, but more often with hatched triangles, semicircles, and lozenges. Yet a curious and highly specialized design, termed by Mackay the "comb motive," recurs on this ware and on normal red-slip ware (*e.g.*, Hr, 478/6 and DK, 5922).

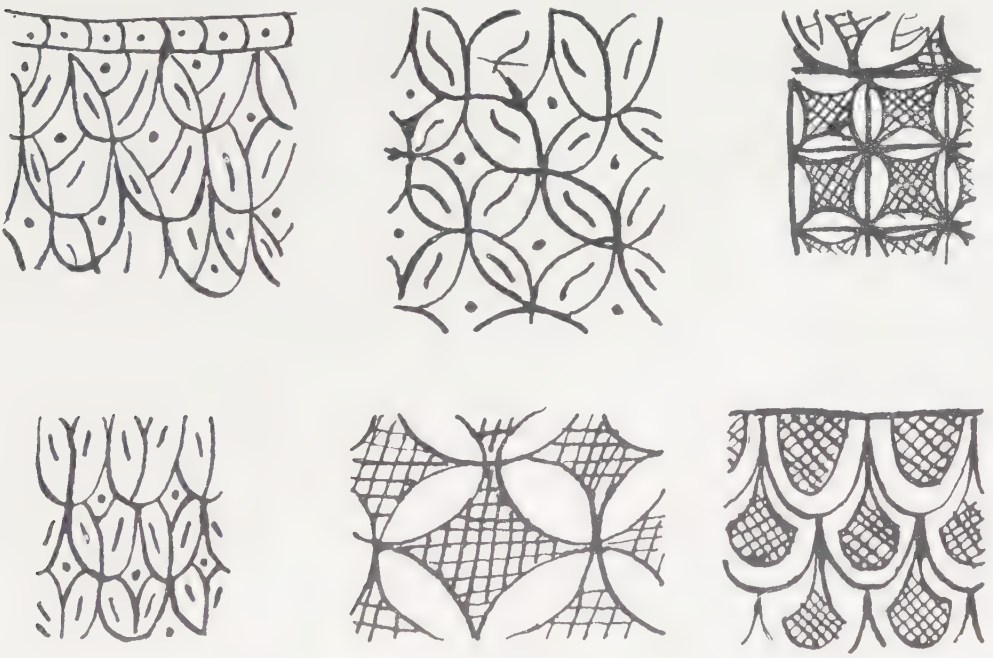


Fig. 2. Designs on Indus Pottery.

It is notorious that floral decoration and repetition patterns based on the intersecting circle are very rare in ancient decorative art. Both were, however, successfully employed by the Minoan artists of the IInd millennium B.C., and the interesting circle system is traceable in Crete to Early Minoan times.[5] Otherwise, a regular application of the system to the decoration of continuous surfaces seems foreign to the ceramic and glyptic art, apparently even to textile decoration, of the IIIrd and earlier millennia. Intersecting circles and other repetition motives were indeed used in the Tel Halaf style of North Syria[6] and Assyria, but not so as to cover any large continuous surfaces.

Indus pottery is accordingly the specialized product of a sophisticated civilization, long rooted in the soil. It attests, no less conclusively than the great cities from which it has been obtained, both the high cultural level of that civilization and its astonishing uniformity over a vast territory ; all the specialized techniques and motives found at Amri in Lower Sindh recur at Harappa on the Ravi, 500 miles further north. This cultural and artistic uniformity itself corresponds with the geographical and economic unity of the area watered by the Indus system, where the conditions of life are best satisfied by large organized communities.

For light on the apparent Mesopotamian relations it is natural to turn to the hill countries west of the Indus. There Sir Aurel Stein collected a great quantity of pottery, clearly allied to the foregoing, and even actual sherds of imported Indus ware. But the native pottery of the hills is stylistically barbarous, just as were the ruined towns and villages from which it has been gathered. It falls into a variety of local styles and fabrics in contrast with the uniformity noted in Sindh and the Punjab. Such diversity is only to be expected in view of the geographical nature of the country, which is broken up by steep ranges and precipitous narrow gorges into little basins of arid but cultivable alluvium that are economically independent. Such conditions plainly do not favour the growth of large economic units nor the rise of higher civilization ; historically, Baluchistan has never been more than " the barbarous dependency, broken up into parochial tribal units of some civilized State." But these very conditions, precisely because they are unfavourable to rapid progress, are calculated to preserve archaic traits which in a more progressive *milieu* would disappear. Hence, quite apart from its spatial position, the hill pottery is likely to betray, more clearly than that of the valley, any underlying continuity in tradition with Mesopotamia.

The most important regions and sites examined by Stein may be grouped as follows, going from north-east to south-west :—

A. Zhob valley.	1 Periano-ghundai.	*Mem. Arch. Surv. India*, 37, p.	34
	2 Moghul-ghundai.	,, ,, ,, ,, ,, p.	48
B. Loralai.	3 Rana-ghundai.	,, ,, ,, ,, ,, p.	52
(Tal. V.)	4 Sur-jangal.	,, ,, ,, ,, ,, p.	73
,,	5 Dabar-kot.	,, ,, ,, ,, ,, p.	55
C. Pishin-Quetta.	6 Riasce-ghundai.	,, ,, ,, ,, ,, p.	87
D. Rakshan.	7 Badrang-damb.	,, ,, ,, ,, 43, p.	35
	8 Kalatuk, Nāg.	,, ,, ,, ,, ,, p.	37
E. Jhalawan.	9 Mehi.	,, ,, ,, ,, ,, p.	154
F. Kolwa.	10 Kulli.	,, ,, ,, ,, ,, p.	128
G. Makran, Kej. V.	11 Shahi-tump.	,, ,, ,, ,, ,, p.	88
,, Dasht V.	12 Suktagēn-dor.	,, ,, ,, ,, ,, p.	60
	13 Nāl.	,, ,, ,, ,, ,, p.	166
	14 Nundara.	,, ,, ,, ,, ,, p.	134

These sites will henceforth be denoted by numbers only.

In practically every basin we find a distinct ceramic style, and these variations are often accompanied by idiosyncracies in architecture and other traits. With one or two exceptions mentioned below, however, I do not think the varieties warrant the distinction of separate cultures any more than do the local styles of Thessalian A ; B ware. Apart from the above exceptions, many common features—and particularly traits common to the hill sites and the

Indus cities—may be recognized. Apart from the ceramic evidence, I may recall cremation burials (1, 2, 5, 9, 12), figurines of humped bulls and of goddesses, numerous bangles of pottery (1, 2, 4, 5, 12) or bone (1, 4, 5, 10, 11, 12), button seals or stamps (5, 9, 12). Particularly important are a clay model of a cart (M. II, 3, 22 unrecognized), identical in type with those so common at Mohenjo-daro, and a stone vase divided into four compartments (III, 5), again exactly paralleled at Mohenjo-daro; both objects come from Mehi. (It should be noticed that in the more northerly sites (1, 2, 3, 5) the goddesses wear a hood; further south (9, 10, 12) the head-covering is absent, but the neck is decked with jewellery.)

All the pottery in question is wheel-made and generally pinkish buff in colour. A deoxidized grey variant, sometimes coated with a dark-grey slip, just as in the valley, is the reduced counterpart of the red ware, but rarely occurs (1, 5, 9, 10, and perhaps 4). At Mehi there are cases where a reddish slip has turned grey on the outside, while the interior remains red. (This deoxidized, wheel-made grey ware must be distinguished from the highly-fired hand-made fabric distinctive of the Shahi-tump burials.) In addition to technique certain distinctive forms are common to the highland and the valley, notably perforated vases (1, 5, 9, 10, 12), beakers with excessively small bases (1, 2, 9, 12) and dishes on high pedestals (1, 9). Imported sherds of painted Indus ware recur at three or more sites (5, 10, 11).

Technically, the native painted wares of the hills resemble those of the valley in the foregoing respects, but there are divergences in the colours used and the slips employed, which not only differentiate the hill wares from those of the valley, but also provide a basis for a geographical division into a north-eastern and a south-western group, corresponding roughly to the division between the figurines mentioned above.

In the first place, the hill-potter frequently employs a red paint (either more purple or more orange than the red slip) in addition to the usual black. In the south this red colour is used only in broad horizontal ribbons; in the north it is applied also in thin lines to outline or fill-in elements of the design. Little significance should be attached to this contrast. Monochrome and polychrome vases occur side by side at most sites. The red is used for embellishing

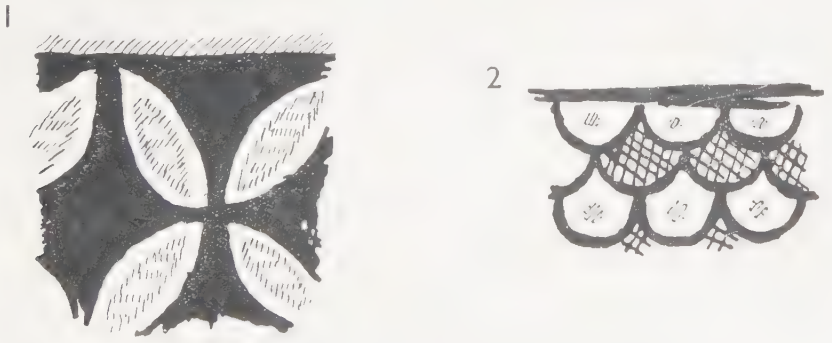


Fig. 3. Designs on Baluchi Pottery.

repetition patterns. Fig. 3 (1) shows an intersecting circle design from Moghul-ghundai on the Zhob embellished in red, and fig. 3 (2) a scale-pattern from Sur-jangal in Loralai also ornamented with red. Conversely, there are isolated

sherds from Mohenjo-daro itself ornamented with red as well as black, quite in the Baluchi manner (*e.g.*, C 1980, perhaps an import).

Apparently more fundamental is a distinction based on the slips employed. In the north, but also at Mehi and Suktagēn-dor in the south, a reddish slip or wash resembling, though inferior to, that of the Indus ware, predominates as a background for the decoration. Buff or cream slips are commoner in the south. Sir John Marshall is thus tempted to make a division into red wares allied to those of the Indus valley and buff ware "linking up with Mesopotamia

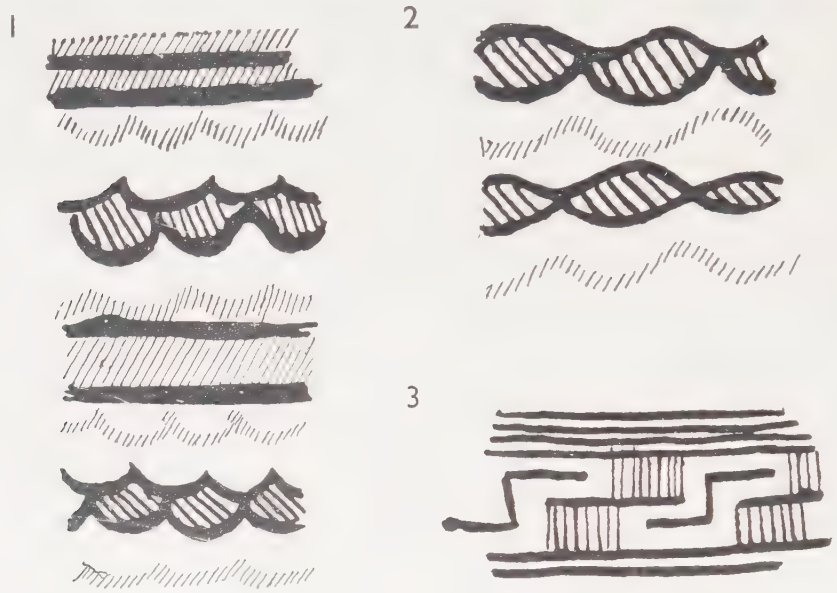


Fig. 4. Designs on Baluchi Pottery.

as opposed to the Indus." I think this is to exaggerate the distinction. There is no strict geographical or chronological separation between the two sorts of ware. The difference in background is not associated with any significant difference in design; on the contrary, identical designs occur over buff and red slips.

At Sur-jangal high up in the Tal valley the specialized pattern of fig. 4 (1) is executed on a buff slip on SJ. 16 and over a red wash on SJ. 7, the clay being pinkish in each case. Fig. 4 (2) shows a variant of the same design over a cream slip on pale buff clay. At Mehi in Jhalwan the peculiar motive of fig. 4 (3) occurs over a red wash on M. III, 1, 57, over a polished brown slip on M. III, 3, 8, and over a cream slip on M. III, 2, 5. At Kulli we have the same "border" in red and black over a buff slip on K.V. v, 3, over red in K.V. v, 20, and over cream on K.V. viii, 30. These instances could be multiplied. Sur-jangal even provides cases in which the pinkish clay is first covered with a cream (SJ. 3) or buff (SJ. 17) slip, which is then overlaid with a red wash to serve as a background for the design. The designs, that is, remain the same while the slips vary. The same will probably prove true of shapes when more vases have been reconstructed.

Finally, we have seen that vases coated with a pale buff or cream slip occur at Mohenjo-daro itself.

The use of pale slips need not then mean that the hill wares contain a western element lacking in India. Yet it may constitute an additional link with the west and denote an archaistic survival of the tradition once common to India and Mesopotamia.

Turning now to the content of the decoration, the art of Baluchistan is barbaric. In none of the sites under discussion do we find a mature style such as ruled in the Indus valley. Repetition motives based on intersecting circles (2, 5, 10), scale-patterns (1, 3, 4), and alternating triangles (5, 6) were used, but never built up into superb decorative schemes. The design is usually restricted to narrow zones. In these we find motives used as borders in the valley, notably the roundel (9, 10, 12), the hatched guilloche (4, 11), the hemisphere (1, 11), the hatched wavy line (9, 10, 12), etc. The whole set of patterns on a vase from Kulli (I, viii, 5) recurs at Mohenjo-daro (on C. 1980), where it may be an import.

All these wares (Nos. 2–6 in Marshall's classification), therefore, seem to me merely barbarized or undeveloped variants on the tradition which culminated in the Indus style. Their general contemporaneity with the latter should follow from their general similarity, their association with imports, chiefly pottery, from the valley, and from the parallels, possibly counter-imports, at Mohenjo-daro itself. The exported Indus sherds may perhaps mostly belong to the Early or Intermediate phase at Mohenjo-daro. But one sherd from Moghul-ghundai (MM.N., 12) resembles the polychrome ware confined to the Late phase there, while others (MM.E., 3 and 13) might be compared with wares from the still later H cemetery at Harappa.

On the other hand, it is only to be expected that we should find in the hills more prominent "western" elements than are discernible in the Indus ware. I pass over as ambiguous Mesopotamian or Elamite parallels to the simpler triangle and chequer patterns. More significant is the sigma pattern which is quite common in southern Baluchistan and occurs also in Rakshan (7, BR. 3), Jhalwan (9), and even Loralai (3) and the Zhob valley (1, 2). Western, too, appears what Frankfort [7] terms the "goat motive," which was also quite popular in Rakshan (8), and at Mehi and Kulli, but does not appear further north. These features may be due to archaism. Admitting that the hill pottery and that of the Indus valley share a common tradition, and that the community once embraced Mesopotamia, it will seem likely that the barbaric environment of the hills would be more favourable to the survival of archaic elements than the busy cities of the valley, where a sophisticated style was elaborated.

(In parenthesis, we may insert here a word on the local style of painting in vogue at Mehi and Kulli. Here the artists depict not only tiny stylized goats, but also big bulls and fishes. Though these are conventionally flattened and elongated to fit into a narrow zone, the details are rendered naturalistically. Frankfort (*op. cit.*) finds parallels to this treatment in Susa II. Indeed, he looks to Baluchistan to explain the naturalism of Elamite art at this phase. The analogy need not therefore be considered as illustrating a western element in Baluchistan. In reality, with the animals are associated pipal trees and other plant motives quite in the style of the Indus valley (M, 8; 14; II, 4, 5; K.V, v, 5; I, iv, 2).)

On the other hand it might be argued that one ceramic group found in Baluchistan, but not further east, provides the source of the "western" elements just noted; in the funerary pottery from Shahi-tump we can easily discern

connections with the west that are more than mere survivals. But these connections lie with Susa I and Samarra, not with the later cultures that flourished in Mesopotamia in the second half of the IVth millenium B.C. and at the beginning of the IIIrd. Yet the graves which have yielded the pottery occur at various levels—generally quite high up—in the ruins of a settlement from which, even at levels below the graves, Stein collected sherds similar to those heretofore considered, as well as models of humped bulls, bangles, and other objects distinctive of the Indian cultures. The graves must, therefore, be contemporary with, or later than the Indus civilization and its hill counterparts. The occurrence of sherds of Shahi-tump ware at other sites which have yielded normal Baluchi

FIG. 5. (Approx. $\frac{1}{4}$)

FIG. 6. (Approx. $\frac{1}{4}$)

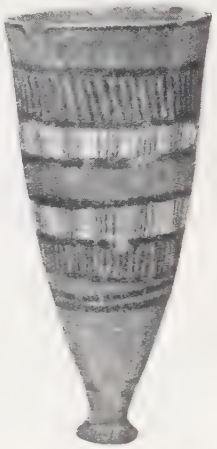


FIG. 7. ($\frac{1}{3}$)

wares (1, 4, 12) suggests that the discrepancy in date must not be estimated too highly.

Connections with Frankfort's[8] Highland Culture in the form represented at Susa I and Samarra are attested by other traits in the Shahi-tump burials beside the pottery. The rite was inhumation, the corpse being either extended or contracted. The grave-goods include flat celts of copper as at Susa I, alabaster dishes as at Samarra, and lapis lazuli beads as at both sites. The pottery, however, is in itself conclusive.

The commonest shapes are the three recognized by Frankfort as typical of the Susa I cemetery—large open dishes (figs. 5, 6), straight sided tumblers (fig. 7), and squat pots (fig. 8, right). Incidentally, the dishes occur in regular nests as at Susa. A small bowl on a low pedestal (vi, 14, e) can also be matched at Susa. Indeed, only a couple of triple vases (iii, 4, and vi, 3), whose nearest analogues come from Susa II, and a tripod (vi, 14, a), with parallels further afield in Troy and Lesbos (*B.S.A.*, xxx, p. 19) and in China (*Mem. Geol. Surv. China*, A, 5, pl. X.) fall outside the normal Susa I repertoire.

The decoration is no less convincing. The centre of the big dishes is often occupied by a square with triangles at its four corners (fig. 4), which, following a hint from Prof. Minns, I propose to call a "Maltese square." Just the same peculiar figure often occupies the same position on dishes from Susa I and Samarra.[9] On other dishes the centre is decorated with a swastika with curved arms (fig. 5), a figure which in its angular form is sometimes centrally placed on vessels from Susa and Samarra.[10] A row of true angular swastikas adorned the little cup (Sh. T., vi, 15, b). These are doubtless magic symbols, and as

FIG. 8. POTTERY FROM SHAHI-TUMP. ($\frac{1}{3}$)

such are a specially permanent element in the decoration of funerary pottery. At Shahi-tump all the motives are somewhat degenerate; they lack the proportion and vigour of the examples from Susa and are clumsily executed. The swastikas are even at times given an extra leg. The Shahi-tump decoration lacks the composition and lively style of the western sites. That may be a sign not only of barbarism, but of degeneracy and lateness. The same remark might apply to the goat motive which is treated in the manner of "Musyan" rather than of Susa I. It may finally be noted that a soft brush has been employed, capable of giving tapering lines, as in Elam and Mesopotamia, in contrast to the stiff "brush" used on the Indus and native Baluchi vases.

Technically, the agreement with the west is no less complete. The funerary vases are all hand-made, most are excessively thin, chopped straw has been used as a temper, most have been very highly fired so that the clay is almost vitrified, some have crumpled up with the heat just as at Susa I (*Rev. Arch.* xxiii, p. 7), and a slip is seldom employed. The colour of the product, however, seems curiously unlike that of the western fabrics. The more highly fired vessels have a porcelain-like texture and a dove-grey colour. But there are others of the same form or decorated in the same way, in which the body colour is pale pink or pinkish buff. The tint is, therefore, mainly a question of firing. There are sherds pink inside and grey outside (Sh. T., 119), or pink on the surface with a grey core (Sh. T., 103, vi, 14, d). And the pinkish surface is quite comparable to that seen on many sherds from Samarra.

Just the same range of tints is illustrated by Stein's sherds from wind-eroded sites in the Helmund delta in Sistan. These sites have yielded a pure grey ware, identical with the funerary ware of Shahi-tump (KG., 939; RR., 057; ii, 938 and iii, 018; SS., 0105, 015, 03, 074), and sherds which are pink on the surface but grey at the core (KG., 097; SS., 0119, 018). But in addition

there are sherds that are pink inside, but green outside (KG., 0135 ; RR., III, 06 and 08, and XVII, 05 ; SS., 052), while the majority exhibit the peculiar greenish surface tint so familiar not only at Samarra but throughout the al'Ubaid culture of Mesopotamia. Thus with the aid of the Sistan material [11] we can trace every stage of the transition from the green ware distinctive of Mesopotamia to the grey ware of Baluchistan.

Incidentally, the sites on the Helmund provide the necessary geographical link between Baluchistan and western Iran. In addition to pottery, the sites have yielded fragments of alabaster vessels and a copper stamp seal resembling in general form those from the graves of Shahi-tump.

At Shahi-tump we find not a mere survival of the Highland style of animal painting and technique of surface treatment, such as is illustrated by the pottery of Nineveh V [12] and Billa 7 [13] (which need not be much earlier than 2500 B.C.), but the Highland Culture itself with all the distinctive traits—burial rites, flat celts, lapis beads, as well as pot-forms and central motives—that characterize the culture in its earliest manifestations at Samarra and Susa. That means an ethnic movement, a migration. But since the Shahi-tump burials (being not appreciably earlier than 2500 B.C.) are at least a thousand years later than those at Susa I and Samarra, the direction of the migration is unambiguously defined : it must have gone eastward. (Incidentally may not this demonstration support Woolley's thesis that the al'Ubaid culture really begins earlier than Susa I ?)

The eastward spread of the Highland Culture demonstrated by Shahi-tump might explain the western motives in the native Baluchi decoration noted on p. 21 ; it cannot explain the underlying kinship in ceramic techniques between India and Mesopotamia in the Jemdet Nasr or Uruk period, for the technique must have been established in India long before the graves were dug in Shahi-tump ruins. And the technique in question is not that illustrated in the funerary pottery.

Light will be shed upon this problem when Mr. Majumdar has published the results of his excavations at Amri. At Mohenjo-daro and Harappa only minor variations in the pottery could be detected between the highest and the lowest levels examined ; red slip ware with patterns in black was common from top to bottom. At Amri Majumdar found this typical Indus ware in the upper strata, but a different fabric lower down. Though I have had the privilege of handling the material, it must naturally await the excavator's description. I may, however, say that on the early pottery the designs are applied either to the pale pinkish clay surface or over a buff or cream slip. They are executed in a warm black, frequently combined with a plum red. In tint this red agrees precisely with that used on the Jemdet Nasr ware of Mesopotamia. It is generally used only for horizontal ribbons, but sometimes also for filling in figures such as triangles.

The patterns include, on the one hand, the sigma motive of the Highland Culture, and triangles, lozenges or chequers such as are common at Jemdet Nasr, on the other, curvilinear motives foreshadowing the classical Indus intersecting circle decoration.

Majumdar's discovery not only promises to confirm and clarify the connection between the ceramic technique of the Indus valley and that of Mesopotamia in the IVth millennium B.C. ; it also offers a solution to some of the obscurity surrounding the Baluchi wares. The pale-slip group among these is now seen to be western, indeed, in as much as it goes back to a tradition also active in Mesopotamia, but not in any sense contrasted with lowland India,

since the same tradition is detected there behind the classical Indus ware. The pale-slip wares of the hills would then just be archaistic.

In the same way it will be possible to explain the character of a ceramic group hitherto omitted, the wares found by Hargraves at the Sohr-damb in the Nal valley [14] and by Stein in the next valley at Nundara.[15] These fall into the group of pale wares, the background of the design being generally a light coloured clay or a pale slip. The motives are outlined in black, but generally filled in with red, often combined with blue, green, and yellow. The red is identical in hue with that from Amri. These elements are used for the representation of finely stylized animals combined with geometric figures blended into a conscious decorative style almost as sophisticated and effective as that prevailing in the Indus valley itself. There is no reason to suppose that this style is materially different in age from the latter, or from the barbaric Baluchi fabrics previously considered. Vases decorated in the Nal style have, indeed, been found at Mehi (iv, 2, 7), Kulli (38, V, iii, 7), and elsewhere, while sherds in the normal Baluchi manner occur at Nundara (Nun. I, 5 ; I, 14). The style might well be regarded as a sophisticated development of that of Amri, parallel to the classical Indus style. Indeed, sherds there and at contemporary valley sites seem to foreshadow Nal motives.

V. Gordon Childe.

References

[1] JRAI, 1930, pp. 131 ff.
[2] *Ibid.*
[3] *Ibid.*
[4] *Mohenjo-daro and the Indus Civilization.*
[5] Matz, *Die frühkretischen Siegel*, p. 136.
[6] Oppenheim, *Tel Halaf* (London, 1933).
[7] *Archaeology and the Sumerian Problem*, p. 70.
[8] *Op cit.*, p. 25.
[9] Herzfeld, *Die vorgeschichtlichen Topfereien von Samarra*, pl. XXIII, 123.
[10] *Ibid.*, p. 9.
[11] It illustrates also the route followed by the Maltese square (Stein, *Innermost Asia*, pl. CXIII, MD., II, 03, and SS., 048).
[12] *LAAA.*, xix, p. 83.
[13] *Mus. J.*, xxiii, p. 252.
[14] *Mem. Arch. Surv. Ind.*, 35, 17 ff.
[15] *Ibid.*, 43, 139.

1 1 2 3 4 5
The five titles of the King.
3
Royal Tombs II
pl. II 8-10
№ 11 has with it the
name of
4
Royal Tombs. II pl. V. 14
5
Naqada. pl. LXXVIII
(XVIII dyn.)
Royal Tombs. II. pl. II. 3
8
6
Royal Tombs I pl. IV 3
Tomb of Zet.
7
Naqada pl. LXXVIII Sen-nefer. (Dyn XVIII)
9
10
Royal Tombs II. pl. XXI. 173
Royal Tombs. II.
pl. XXIII. 197
11
Royal Tombs II. pl. XXIII. 201.
12
Royal Tombs II
pls XXVII, XXX. 129
see also
№s 96, 128
13
P.S.B.A. XXI. pl. I
Graffiti at El Kab
Shecaru and Khufu
14
Hierakonpolis II
pl. VIII. 1. p. 19
15
Ann. du Service. XXVII. p. 110
Step Pyramid pl. I
L.D. II 2f
Pyr W. 479
16
Mariette Mastabas. p. 225

THE PHARAOH'S THIRD TITLE.

The third title in the royal titulary (fig. 1, No. 3) has always been a matter of some uncertainty. It was translated as "The Golden Hawk" by the earlier Egyptologists, a translation which still finds favour with Dr. Alan Gardiner. "Golden Hawk," however, means nothing in itself, and the evidence which can be adduced for the reading is too late in date to be of value in indicating the original meaning. Professor Sethe has suggested that the group is a rebus reading "Horus over Seth," which certainly gives the sense of the Greek equivalent ἀντιπάλων ὑπερτέρος "Superior to foes," *i.e.*, Invincible. But so elaborate an explanation does not fit with the simplicity of the other royal titles, which have reference only to the King as a person or to his position as the ruler of the Dual Kingdom, never to battle or conquest.

Of the five titles the earliest is the Horus, where the falcon-totem of the King stands above the *s-rekh* on which the King's name is inscribed (fig. 1, No. 1; fig. 2). This title dates to the reign of Narmer, who also used the title of *Ni-sut-byt* "He of the Reed and the Bee" (fig. 1, No. 4), when he united Lower with Upper Egypt; the union being symbolised by the emblems of the two kingdoms placed side by side. The next title to come into use was *Nebty* "The Two Ladies" (fig. 1, No. 2); again a title indicating the union of the two parts of Egypt symbolised by the goddesses of the South and North. Aha, the second King of the Ist dynasty, was the first to use this title. Shaaru, the first king of the IVth dynasty, brought in the "Son of the Sun" (fig. 1, No. 5). The "Golden Hawk" was also a late title, as its earliest occurrence is among the titles of Shaaru. This fact is peculiar, as there is no apparent reason for the invention of a new title as in the case of the "Son of the Sun."

The order of the titles appears to be invariable and suggests that it was intentional, perhaps referring to the order in which they first came into use. This can be seen in the first and fifth; No. 1 belongs without doubt to the earliest dynastic Kings, No. 5 first occurs when sun-worship was introduced, but was not adopted regularly till that worship was fully established in the Vth dynasty; their position as the first and last of the series appears to be intentional. Nos. 2 and 4 seem to be contemporary, but in our present state of knowledge No. 3 does not fit into this scheme. In analysing the titulary still further, it is clear that Nos. 1 and 5 belong to the person of the King; the first is his name as the incarnate falcon-god, while the title *Son of the Sun* shows that he was the physical offspring of the sun-god. Nos. 2 and 4 refer to his official position as King of the Two Lands. Again the third title, as at present translated, is not accounted for.

I suggest therefore that the group of the "Golden Hawk" (fig. 1, No. 3) is a late form of an earlier sign. The two graffiti at El Kab, where it occurs above the names of Shaaru and Khufu, give the clue. The sign has two falcons, the first wears the crown of Upper Egypt and must be the god of that country, Seth; the other has the crown of Lower Egypt and must represent Horus. Both stand on the gold sign, which is here probably a generic name for the cult-centres of Seth; this would account for the occurrence of more than one Ombos (Nubt) and also for the joint temple of Horus and Seth at Kom Ombos, where the two gods had an equal worship. The correct appellation of the god of Upper Egypt

was Nebty, "He of Nebt"; even as late as Pyramid times (fig. 8) the figure of Seth is clearly only the determinative of the word *Nebty*. The late form of the group represents then the two gods, Horus of Lower Egypt in the form of his sacred bird, and Seth alluded to by the epithet Nebty. The sign would then read *Nebui* "He of the Two Lords," and would be parallel with the second title, "He of the Two Goddesses." If this is so, the title instead of being meaningless would convey the same idea of sovereignty over the Two Lands already indicated in the Two-Goddess title and in the Ni-sut-byt. The whole titulary thus makes a symmetrical group with the dual titles in the middle and the personal titles at the beginning and the end.

If this title reads *Nebui* the earliest form is seen in the primitive on a bowl of Zer, which Petrie has already translated as *The Double Lord* (Royal Tombs II, p. 49)). Three Kings bear this title, Sma-y, Dy, and Zeser, all belonging at the latest to the Ist dynasty. It is fairly certain that the conquest of the north was not due to one King only, though Menes always has the full credit. A parallel conquest of the north took place in the early New Kingdom when Aahmes I had the credit, though his predecessors, Seqenen-Re and Kames, had done a large part of the work. If Sma-y and Dy had already conquered part of the north, they might well adopt the Two-Lord title to indicate their divine sovereignty. The Two-Goddess title shows sovereignty of an earlier type, though still definitely religious, for the worship of a goddess is earlier than that of a god. The fourth title indicates the secular authority over the Dual Kingdom. Another interesting grouping of the titulary then emerges; the first three titles are clearly religious, and the names associated with them would be under divine protection; the last two are the titles of an earthly king, and the names are those of a human being, as such they are enclosed and preserved against danger.

The parallelism between Horus and Nebty is evident when the *s-rekh* of Perabsen (fig. 9) is compared with those of the Followers of Horus; and it has long been acknowledged that the two gods could be combined in one title, as in the case of Kha-sekhemui (fig. 10). In another example of Khasekhemui's titulary (fig. 11) the two falcons facing one another are probably a variant of the Nebui-title, with an appropriate epithet following, *Hetep-ymy-f*, while Kha-sekhemui is the epithet for both the Ni-sut-byt and Two-Goddess titles. The same type of combination is found in Neter-khet's titulary (fig. 14); the Gold-sign can be read by reference to fig. 15, where after the royal name the sign is surmounted by the sun-disk, and is perhaps a variant of the title though still reading *Nebui*, *i.e.*, Re and Nebty, and followed as is customary by an epithet, "A cycle of life and power."

The combination of the two gods, Horus and Seth, could be well represented by the Greek equivalent. Seth was the god of battle, and invincible except by the might of Horus. Any King under the protection of these two redoubtable deities would also be invincible, and could therefore be called "Superior to foes."

The queen's title (figs. 12, 16) begins in the Ist dynasty but is discontinued after the Old Kingdom. It probably reads "She who sees Horus-Nebty." At Abydos three women bear the title, all of whom were buried, perhaps as sacrifices, at the tomb of King Den. There were three queens of the Old Kingdom buried at Saqqara, Nebty Neb, Khuyt, and Mer-es-ankh.

M. A. Murray.

EGYPT AND THE CAUCASUS.

A LARGE number of precious archaeological monuments lie hidden in the Caucasus, the latter having always been the link connecting the old cultures of Eastern Europe with the highly developed cultures of the Mediterranean basin and the ancient East. The history of the Caucasus offers therefore extremely valuable material for historians and archaeologists, although it has been hitherto studied very insufficiently.

The most valuable information about the cultural relations between the old Caucasus and the countries of the ancient East is to be expected from the monuments of the chalcolithic and bronze cultures of the Koban type in the Euxime region.

The northern and central Caucasus is saturated with remains of this culture, particularly in the Ossetian and the Kabarda-Balkaria Autonomous Regions, where it is clear that we must concentrate our principal investigations ; some finds I made in 1931–32 pertaining to the domestic life and cultus induce me to assume that the bronze and also the chalcolithic culture were well developed. This region, and particularly Kabarda and Balkaria, possesses extensive copper ores which perhaps are not exhausted even now, and this fact certainly accounts for the abundance of bronze objects discovered there. I have found many lumps of copper pyrites in a valley of Balkaria. Evidently the tribes which were dwelling there in prehistoric times constantly extracted and worked copper ores.

The great importance of the working of copper and bronze in the cultural life of the old Caucasus will be evident if we remember that in Egypt, the oldest and the most cultured country of the East, copper and bronze were the principal metals worked. The appearance of copper caused a cultural revolution of such extent that references thereto are even found in the works of Roman authors (Lucretius, *De rerum natura*, 5, 1284–1290).

Many bronze objects of most diverse kinds, chiefly arms and ornaments, have been found in the numerous tombs of the northern and central Caucasus, and particularly in the famous tombs of Koban, not far from Vladikavkaz. Numbers of bronze objects have also been discovered quite recently in the tombs of the Kabarda-Balkaria Region, particularly in the vicinity of the Baksan gorge and the mountainous region of Balkaria (near Gundelen and Bilym). In various respects these latter objects present close analogies with those found at Koban :—

1. At Koban a small hafted stone hatchet has been found and described by P. S. Uvarova. It is made of grayish shale. Its dimensions : height 8 cm., width at the opening 5 cm. The whole hatchet is very finely polished. The hammer part of it is bent slightly downwards. The opening is circular.[1] P. S. Uvarova found it possible to attribute this hammer-hatchet to the bronze age.

This Koban hatchet may be compared with a similar stone hatchet found in 1931 near Nalchik. The dimensions of the latter are also very small : length 12 cm., width of the blade 5 cm., diameter of the head 3 cm., width of the hatchet 8 cm. This hatchet is fairly polished, and in the middle is bored a circular opening. The hammer part is bent slightly downwards. Since bronze objects were found with this hammer-hatchet, we can attribute it also to the bronze age. These minute instruments may perhaps have been symbols of power of

the tribal chief, and therefore were so carefully made. The ritual knives in ancient Egypt were also always made of stone, even in the most recent epochs.[2]

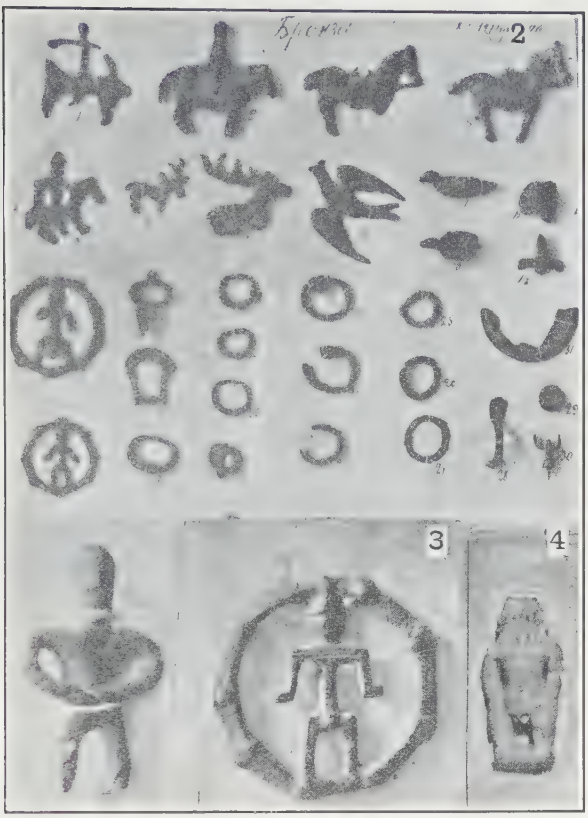
2. The ornament of the pottery found at Koban[3] displays purely linear designs, cut into the material and painted white. They are oblique lines, squares, triangles, zigzags, broken lines, cross ornament, swastikas, firtree-designs, waves, meanders, etc. The decoration of the pottery (fig. 1) discovered near the stone hammer-hatchet in the tomb of the bronze age at Naltchik presents a close resemblance to the ornament just referred to; it includes common linear ornaments, oblique lines, zigzags, triangles and points.

Fig. 1. Pottery from Bronze Age Tomb at Naltchik.

3. The representations of animals discovered in tombs of the bronze age in the Kabarda-Balkaria Region (fig. 2), particularly in the gorge of Baksan, are doubtless akin to the "Koban animal style" or the representations of animals at Koban.

4. Finally, the characteristic feature of the Koban culture consists of burials in stone cists; these cists are made of unpolished slabs of local sandstone 12–15 cm. thick. A similar burial in a cist was found in 1931 in the village Zayookovo in the Baksan valley, and another near Novorossiisk, in Gelendgik.

And if it is possible to parallel the Koban and the Assyro-Babylonian bronze objects,[5] the objects discovered in Balkaria present some relationship with the ancient Egyptian culture. In this respect the most interesting is the little statuette of an anthropomorphic deity standing in the middle of a circle (fig. 3). This god, who perhaps may symbolise the sun, with his schematic, nearly geometric, lines recalls the representations of the dwarfish god Bes or Pateka. Of a late Egyptian period there have been found in Balkaria district several authentic Egyptian objects,[6] including small amulets of the Hellenistic and Roman times, viz., a couchant lion, a tortoise and a statuette of the above-mentioned god Bes (fig. 4), whose cultus became very widely diffused during the period of decadence of the Egyptian culture. This fact may certainly be considered a convincing proof of the existence of cultural and commercial rela-



FIGS. 2-4. BRONZE OBJECTS FROM TOMBS OF THE KABARDA-BALKARIA REGION.

tions between the Caucasus and the countries of the ancient East in the first millenium B.C. These relations connected the old Caucasus as far as the mountainous areas with Assyria, Babylonia and Egypt. The commercial routes between the Caucasus and the countries of the ancient East are as yet difficult to establish. They might have run either through the Greek commercial colonies on the coasts the Black Sea, or through the mountain passes, the countries of Nairi and Urartu, Anatolia, Mesopotamia and Syria. The numerous objects discovered in the Kabarda-Balkaria Region, such as pottery with linear designs and sometimes with small silver ornaments, perforated and polished small stone hammer-hatchets, and, finally, bronze objects belonging to the domestic life and cultus are, then, evidence that in the first millenium B.C. there existed in the central regions of the Caucasus a highly developed culture connected with the cultures of the ancient East.

The existence of this connection can be demonstrated by a number of concrete facts besides the archaeological analogies just referred to.

In the Baksan valley, in dry beds of rivers and streams, I have found a considerable amount of obsidian or volcanic glass, of various tints from deep black to reddish brown. The splitting of large lumps of obsidian produces thin transparent flakes, like smoke-coloured glass. The edges of such flakes are so hard and sharp as to serve as a knife. And in fact we know that in the archaic epoch the Egyptians made small knives of obsidian. But as obsidian is not found in Egypt, they were obliged to import it from countries more or less

remote. Wainwright,[9] who has carefully studied the question of ancient obsidian, assumes that the inhabitants of Egypt as well as the ancient population of Mesopotamia imported obsidian from Armenia. But since we have established the fact of cultural relation between the countries of the ancient East and the Central Caucasus, we can admit that the Egyptians may have imported the obsidian they needed from the Central Caucasus. The ancient inhabitants of the Caucasus also made various objects of obsidian. Obsidian arrow-heads have been found to the south in Tiflis, in Tsalka, in Redkin-Lager and in Nzchet, and small obsidian knives have been discovered in the Kabarda-Balkaria region.[10]

The metals are, after stone, the second important factor in the cultural development of humanity. Bronze is one of the oldest metals, and the discovery of it originated the bronze culture. The flourishing state of this culture in the Caucasus is attested by the tombs of Koban and by the burials excavated in the adjoining regions. On the other hand, this culture produced the classical metallurgy of ancient Egypt attested by numerous monuments and representations. In this connection the question of the origin of copper is of great importance. The Egyptians from the epoch of the earliest dynasties imported copper from the Sinai copper mines, which they exploited up to the XXth dynasty.[11] But from the epoch of the XVIIIth dynasty the Sinai copper evidently did not entirely supply their needs, and they were obliged to import it from Cyprus. The Babylonians also imported copper from abroad since they possessed no copper ores of their own. They may have imported it from Persia, the latter having extensive deposits of copper ore. Accidentally I discovered a considerable amount of copper pyrites in a valley of Balkaria. Further explorations may result perhaps in finding here more copious supplies of copper. At all events, the fierce wars with the Hittites waged by the Pharaohs of the XIXth dynasty and by the Assyrians with the mountain tribes of Nairi and Urartu may have had an economic base, viz., the want of metals in Egypt and Mesopotamia.

But since the Caucasus possesses copper ores, and since copper has been worked there from the earliest times, old worked out copper mines must remain there. By questioning old inhabitants of Kabarda and Balkaria I have found that traces of old copper workings exist up to the present time.

Finally, the chemical composition of Egyptian bronze has a close affinity with that of the Koban bronze. Egyptian bronze—its name according to Erman [12] is akin to the old Hebrew word—and particularly the bronze vessel No. 3553 in the Cairo Museum, contains 88.32 per cent. of copper. The Koban bronze objects contain the following percentages of copper: 87.95, 88.12, 89.25, 88.47, 86.61, 87.85, 88.90, 88.52. We see that in three cases out of eight there exists a very close coincidence between the copper contents of the bronzes from the two sources.[13]

Metals and metallurgy form the base of the culture of the old Caucasus from the chalcolithic period and through the bronze to the iron age. The technique of casting had reached there a high degree of development, as may be seen from the Koban hammers and small bronze objects found in tombs of Ossetia, Kabarda and Balkaria.[14] Most of these objects can be readily divided into two groups: arms and ornaments. To the first group belong the hammers and daggers; the second group includes pins, fibulae, belt buckles, ornaments with figures, rings, bracelets, etc. As to the technique of the treating of metals, mention should be made of the method of inlaying bronze belt buckles with iron —a proof that iron was known at this epoch in the Caucasus but was still a rare and expensive metal.[15] These Koban bronze buckles inlaid with iron can be

compared with the Egyptian bronze statues inlaid with fine silver threads. According to Flinders Petrie this technique of ornamenting metals with other metals still exists in India, where it is called " Keft work " ; [16] and we know that the Egyptians called the Aegeans " Keftiu." It is not improbable that the highly developed technique of treating two different metals was, then, a characteristic feature of the old Mediterranean cultures. Very important, although hitherto rather obscure, is the question of the technique of fabrication and using of tools. The plough found in one of the burials of the Kabarda-Balkaria Region, and now included in the local museum, may be cited as an instance thereof from a very late epoch. The characteristic feature of this plough consists of a long chain, manacles and collars. Evidently it was destined for ploughing with men, viz., slaves or prisoners of war. Without drawing any inferences therefrom I should like to allude to a little analogy from ancient Egypt. A wall painting of the tomb of Paheri [13] in El Kab from the epoch of the XVIIIth dynasty represents a plough drawn by four men. The plough is directed by a tall and bearded man. Behind, the sower strides with his small basket of grain.[17]

The ceramics of the old Caucasian bronze cultures are distinguished by their plain shape, simple technique, and ornament. Most of the forms are squat pots, with short and broad spouts, and irregularly shaped handles, but some specimens display an individual character. Such is a more slender vessel with symmetrically placed handles, found in the excavations beyond the village Volny Alü, near Naltchik. The ornament is mostly linear, schematic, nearly geometric, and in this respect shows a close relationship to that of the archaic Egyptian vessels distinguished by their schematism and geometrism, although this type of ornament is to be met in several other countries.

But if the decoration of ceramics is extremely simple and archaic, that of metal objects, such as hammers and belt buckles, is exceedingly rich and complex. The most characteristic fact which allows us to establish a parallel between the Koban and old Egyptian art is the abundance of snakes, spirals and ram horns in the decoration of the Koban metal objects. These rather complicated figure ornaments remind us of the old Egyptian uraeus, the horns of the ram-headed god Khnum, and the spiral, which has some resemblance to the Aegean designs. Evidently we have here either a single cultural circle, or very old relations which connected the whole Mediterranean basin into a single cultural body.[18]

As to the people of this old bronze (and particularly the Caucasian bronze) culture, the present state of the ethnology of the Caucasus does not allow this question to be answered. We may conventionally use any ethnical term, but it is not easy to establish its exact meaning. Herodotus introduced the term " Kimmerians,"[19] But we know nothing about them, beyond isolated information given by the great Father of History. We can only infer therefrom that the Kimmerians dwelt not far from the Scythians and had wars with the latter, that the Scythians occupied the country of the Kimmerians and drove them out from Europe into Asia ; furthermore, we know that the Kimmerians often collided with the neighbouring inhabitants of Asia Minor, and that their invasions reached even Lydia and Ionia. Finally, as to the extent of diffusion of their culture, the latter seems to have covered an extensive area from the South-Russian steppes to the confines of Lydia and Mysia. These data of course needs to be carefully verified on archaeological grounds, but one fact throws a valuable light on this obscure question. We know that a close relation exists between the bronze and megalithic cultures of Southern Russia and the Northern Caucasus

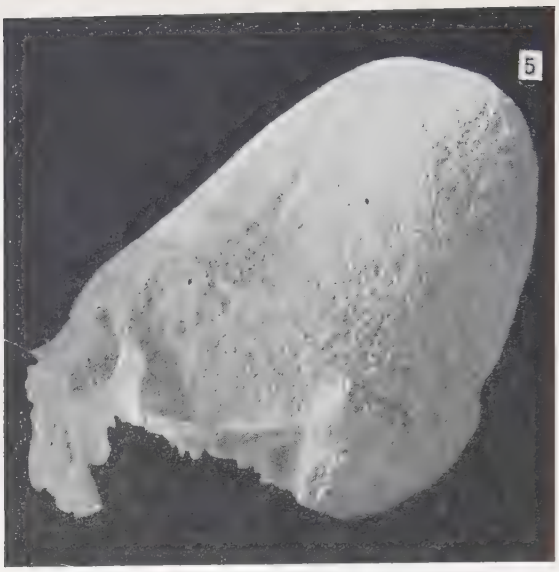


FIG. 5.—DEFORMED SKULL FROM TOMB IN KABARDA-BALKARIA REGION.

from the chalcolithic up to the early iron age. This relation connects more or less closely the cultures of the south of Russia (Usatovo, near Odessa) through Gellendgik (area of megalithic culture) with the Central Caucasus. Further investigations must throw a light on the continuance of this cultural chain through the ancient areas of Urartu and Nairi to the oldest cultural homes of Eastern Asia and Egypt.

While presenting this problem, studied as yet very insufficiently, I should like to mention an anthropological detail. Throughout this whole area, including the Crimea, many deformed skulls have been found.[20] I have seen in the Museum of Naltchik several such highly deformed skulls (fig. 5), found in the Kabarda-Balkaria Region. Such skulls, which perhaps may have belonged to macrocephals described by Hippocrates and Pomponius Mela, are met with in different countries. Dubois de Monpérét in 1832 had seen three such deformed skulls, and attributed them to Kimmerians.[20] Further finds augmented the number of deformed skulls known. Many such skulls have been found in the Crimea near Kerch, Inkerman and Bakchisarai. Many of them also have been found in the Caucasus in the excavation of the Samtaur tombs near Mzchet (Tiflis), in Sartachali, and in the valley of the Baksan river. The custom of deforming skulls was still maintained up to the end of the XIXth century in several regions of the Caucasus, viz., in the Tiflis district (Kartalinia), in the Akhaltsich, Sigkach, Dushet and Rachinsk districts of the Kutaiss Government, by the Tatars of the Echmiadzin and of the Sheruro-Dalagaevsk districts, by the Kurds in some localities of Daghestan, by Armenians in Turkish Armenia near Erenkioi, not far from Kadikoi (old Chalcedonia), and Asia Minor. This custom was so deeply rooted that, according to Weissbach and Anuchin, it existed in the XIXth century among Armenians, Georgians, Turks, and even perhaps among the Greeks of Asia Minor.[21] Finally, deformed skulls have been discovered in the European part of Russia, and in several countries of West Europe. These skulls, as Anuchin observes, belong to different epochs, and form two separate archaeological groups. The oldest group pertains to the beginning of the iron age, the more recent to early mediaeval

times, the Samtaur and Kerch skulls filling up the gap between these epochs. Anuchin wisely abstains from attempting to resolve the problem of the nationality of these "macrocephals." He only states that these skulls belonged neither to Greeks nor to Scythians, but must have been those of alien tribes.[22] Without entering into particulars of this intricate anthropological and ethnological problem, I only mention one fact. On most of the representations of the Amarna period, Akhenaten, his relations and persons of his entourage have unnaturally elongated skulls, strikingly like the artificially deformed skulls just referred to. Thomas parallels the artificially deformed skulls of girls of the tribe Mangbettu in the Congo [23] with the skull of one of the Pharaoh's daughters. We may compare all these skulls, and establish the existence of a widely spread custom of deforming the skull dating from the bronze age or the beginning of the iron age. Further investigations will throw light on this problem.

In the light of these facts we can verify and correct Herodotus in respect of the close affinity existing between the Egyptians and Kolchidians who had the same manner of preparing linen, of performing circumcision, and who had identical habits and spoke the same tongue.[24] Not everything is true in this statement of Herodotus, but we can extract therefrom a kernel of truth. The whole Eastern and Mediterranean world formed a single cultural complex connected by commercial and cultural ties. And this old and highly developed *orbis antiquus* enclosed such apparently provincial and non-accessible countries as the Central Caucasus. Further archaeological investigations must establish the routes these cultural and commercial relations followed. They might have run in three different directions: (1) through the countries Urartu and Nairi into the old cultural regions of Mesopotamia, (2) through Asia Minor and Syria into Egypt, or finally (3) through the commercial towns of the coast of the Black Sea, in the Crimea and in the Caucasus, to the oldest seat of Eastern culture, viz., Egypt. In this connection many facts acquire a keen interest, for instance such as are given in the paper of the English archaeologist, Flinders Petrie, who compares the mythological toponomy of the "Book of the Dead" with the real toponomy of the Caucasus.[25]

I abstain from entering here into the discussion of this evidence, and the only inference I should like to draw is that the early Caucasus and ancient Egypt were included in a single cultural complex, the different parts whereof were connected far more closely than has been thought hitherto and even than is thought now.

Moscow, *January* 12, 1933. V. I. Avdief.

Footnotes.

1. Uvarova, P. S.: Mogilniki sev. Kavkasa, p. 23 (Russian).
2. Herodotus. II, 86.
3. Uvarova, P. S.: *Op. cit.*, p. 72.
4. *Ibidem*, pl. 46, N. 1. A small mirror is in the Historical Museum of Moskow. Inv. N. 63, 501.
5. Gauthier, G. V.: Otcherki po istorii kulturi vostotch noi Evropi, vol. I. Moscow, 1925, p. 104 (Russian).
6. Some of these Egyptian objects belonging to a late epoch, and particularly small scarabs, a representation of a couchant lion and a figure of a tortoise, are reproduced and described in V. Miller, (*see Bibl.*), pp. 86, 87, 98.

Cf. B. Piotrovski : Egipetskije predmeti v severno-kavkasckom kraje. Soobchenia Gaimk, 1931, June, N. 6 (Russian), and my article in " Krasnaja Niva," 1931, N. 23 (Russian).

7. Chantre : Récherches anthropologiques dans le Caucase, vol. i., pp. 52–53. Materiali po archeologii Kavkasa, vol. 9.

8. Bénédite, G. : Monuments préhistoriques de l'Abyssinie mériodionale. Revue de l'Égypte ancienne, 1925.
Frobenius : Das unbekannte Afrika, 1923.
Baumgaertel : Dolmen und Mastaba, 1926.

9. Ancient Egypt, 1927, part 3.

10. Virchov : Graeberfeld von Koban, pp. 92–93.
Chantre : Récherches, vol. 1, pl. 1.

11. Lucas : Copper in ancient Egypt, Journal of Egyptian Archaeology, 1927.

12. Erman, A. : Das metall *ḥšmn* A.Z. 30, 1892, pp. 31–35.

13. Lucas : Analysis of bronze and copper objects. Annales du Service des Antiquités de l'Égypte, vol. 1, p. 3, 1900, p. 288.

14. Virchov : Graeberfeld von Koban, p. 23.
Uvarova, P. S. : *Op. cit.*, passim.

15. Gauthier, G. V. : *Op. cit.*, p. 104.

16. Petrie, Flinders : Arts et métiers de l'Ancienne Égypte, 1912, p. 120.

17. Lepsius, Denkmaeler : Abth, 3, B1, 10, El Kab Grab 3.
Tylor and Griffith : Tomb of Paheri, 1894, pl. 3.

18. Uvarova, P. S. : *Op. cit.*, p. 72.

19. Herodotus : iv., 11, 12.

20. Anutchin, D. N. : O drevinich iskustvenno-de-formirovannich tcherepach, naidennich v predelach Rossii, Moscow, 1887, pp. 1–2 (Russian).

21. *Ibidem*, pp. 31–42.

22. *Ibidem*, pp. 65–66.

23. Thomas : Deformation of the Head, Ancient Egypt, 1925, I, p. 3.

24. Herodotus : II., 104, 105.

25. Petrie, Flinders : The origins of the Book of the Dead, Ancient Egypt, 1926, II, pp. 41 sqq.

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The history of the question :

1. Miller, V. : Terskaia oblast. III. Archeologitcheskije ekskursii v gorskie obshestva Kabardi (Balkaria, Baksan, Tchegem). Materiali po archeologii Kavkasa. I. Moscow, 1888 (Russian).

2. Uvarova, P. S. : Mogilniki severnogo Kavkasa. I. Moscow, 1900 (Russian).

3. Chantre : Récherches anthropologiques dans le Caucase.

4. Virchow : Das Graeberfeld von Koban im Lande der Osseten, Berlin, 1888.

5. The articles of A. Miller in the Soobchenia of the Gaimk, N. 1, 1926. 3, N. 1931 (Russian).

6. Piotrovski, B. : Egipetskije predmeti v severo-kavkas kom kraje. Soobchenia Gaimk, N. 6, 1931 (Russian).

7. Bikovski, S. N. : Japhetitcheskii predok vostotchnich slavian-kimmeriitsi. Isvestia Gaimk, 1931 (Russian).

8. Gorodzof, V. . K voprosu o kimmeriiskoi kulture. Ranion, Moskow, 1928 (Russian).

RARE SCARABS.

SEVERAL scarabs that have been acquired by University College in the last few years are so unusual as to deserve notice. They are here drawn double size.

1. Ra-ne-user, V, 6. "Beloved of the gods, beloved of Hathor." Cylinder of wide bore, white metal, base silver (?).

2. Teta, VI, 1. Brown. Type of back J, 70.

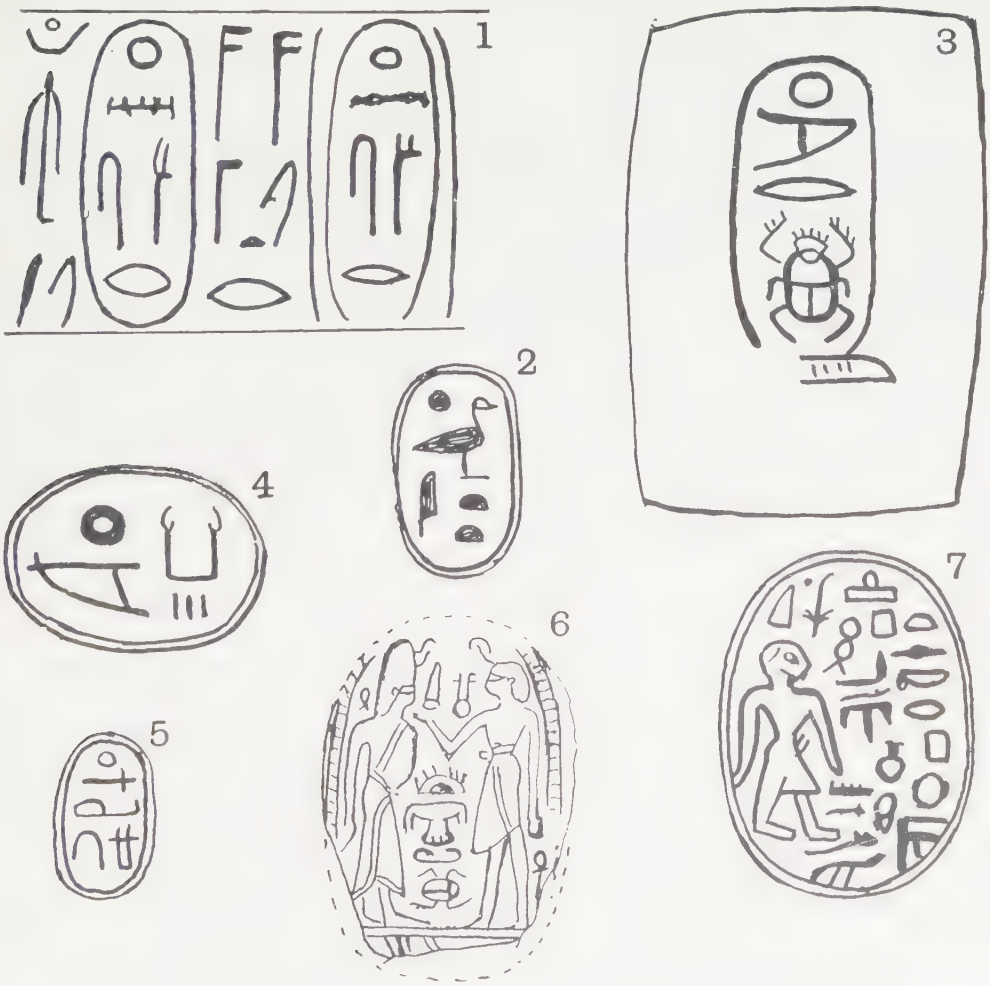
3. Ra-mer-kheper, XIII, 40. Brown. Flat back. This and the next show the high level of the XIIIth dyn.

4. Ra-mer-kau, XIII, 47, unique. Deep blue lazuli, fine work. H, 92.

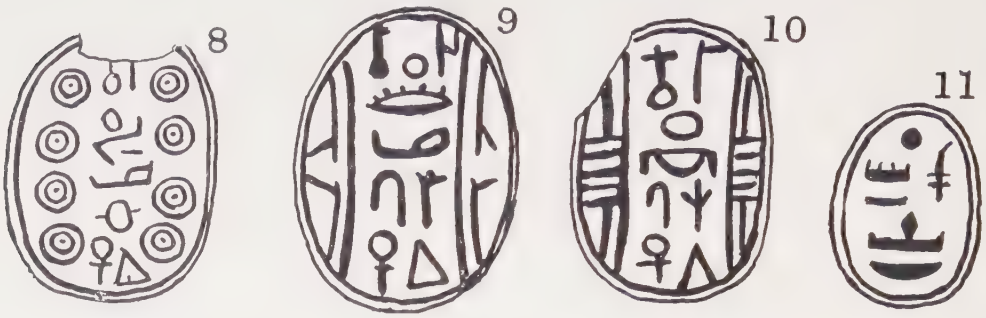
5. Apepa I, XV, 5. Brown limestone. J, 48.

6. A Hyksos Egyptian king before a Hittite king. The latter is not styled "good god", but "good king", by the tall triangle which here is the sign "king", and not "city." Whether *kha nub od kheper* belongs to the Hittite or, rather, to the Hyksos, is not certain. The lines are very fine, and the surface worn down so that only the bottom of the grooves remains. This is an important monument of the Hittite lordship over the Hyksos, hitherto unsuspected. It is cut on black steatite, with green glaze almost worn away. Type W 57.

7. *Pekh-ab.* The funeral formula is very rare—perhaps unique—on scarabs



Hetep da nesu Ptah-seker ama per kheru Pekhab sa Men-oa-f? The latter part is roughly cut and obscure. T, 4. Brown.



8. *Ra-mao-ab,* a well-known Hyksos, for whom the ring border is new. T, 5. White.

9. *Ra-kho-user,* better work than usual for this Hyksos. T, 33. Brown.

10. *Ra-nub-sen?* A scarab of *Ra-nub-user* is known (Blanchard), but this cannot so be read. The last sign might be a growing plant, but the sign is unknown. U, 55. White.

11. *Ra-men-hetep.* In a tale the treasurer of Rahetep is said to have died in the fourteenth year of Ra-men-hetep. In accord with that connection this scarab is closely like those of Rahetep, and so confirms the historical knowledge of the late writer. G, 62. Green pottery, unique.

Flinders Petrie.

CHINA AND EGYPT.

Dr. Karlgren's book *Ordet och Pennan i Mittens Rike* (translated into English as *Sound and Symbol in Chinese*) is extraordinarily interesting as showing the method by which a picture-writing gradually changes to a phonetic writing. The Egyptian hieroglyphic script appears to have begun in the same primitive way, *i.e.*, as a series of pictures; it is, however, worth noting the effect of the spoken language on the writing. It is only to a certain limited extent that the two scripts follow the same course of development. The similarity and contrast of the two show the wide difference in the mentality of the two races.

One of the earliest forms of writing, probably the most primitive of all, is the drawing of an object, *e.g.*, a picture of a fish to express a fish. A language thus written must necessarily consist at first of nouns only, each sign being an ideogram or picture of some concrete object; after a time the picture of the object takes on a secondary meaning, and finally is used for its sound-value only.

There are many instances of this change in hieroglyphic writing. (1) The sign is the picture of a large basket (fig. 1); as it contained the owner's property, it took on the transferred meaning of "possessor, lord"; and as it was sufficiently large to contain the whole property, it also has the meaning "all, every." But throughout and in all its meanings the picture of the basket remains unchanged (fig. 2).

(2) The sign in its earliest form (fig. 3) is clearly a mouth slightly open with the teeth showing. Even when the script is completely formed it can stand for the word "mouth," or, figuratively, for "speech, language"; but the process of change had been in force from early times, so that by the Ist dynasty was already used as a phonogram, *i.e.*, a sign representing a sound only, without reference to its actual meaning, and used as an alphabetic sign to spell out words where that sound occurred. This last example shows another development in writing. appears to have been originally a biliteral word, but in process of time the weak second radical dropped away and left only the initial. This alteration in phonetic value continued in the historic period, and is clearly seen in the sign . In Egyptian this was the equivalent of the two sounds and ; but in demotic and Coptic, the sign in its cursive form has become an alphabetic letter and is equivalent to only, the being eliminated.

(3) The sign , the picture of a hare, is evidently the method of expressing the word *wnî* "To run, to hasten," the hare being the swiftest of animals. Later, it becomes the phonogram for the two letters *w* and *n*, without any regard to its original meaning.

A step in advance was made in picture-writing when the signs are used to express a quality or condition. This is done in many cases by the combination of two signs. Thus, in Egyptian, , the picture of a battle mace with the head of white limestone, means "white"; but when combined with the picture of the sun , it means "bright, shining." , the blackish scaly back of a crocodile, means "black"; when combined with the sign of an inhabited place it stands for the country of Egypt, the black soil of the cultivable area being characteristic of the Nile Valley.

There are, however, a certain number of signs in Egyptian which never degenerated into mere phonograms. (1) One of the most interesting is the one-barbed harpoon *w'* "One" (fig. 4, the actual object, fig. 5, the hieroglyph). Its unchanging quality is in marked contrast with the two-barbed harpoon, *śn*, which, owing to its two barbs, means "Two" (figs. 6 and 8, the hieroglyphs, fig. 7, the actual object); but though it can always retain that meaning, it can be used in the transferred sense of "brother, equal"; and it occurs also as a phonogram, as in *śnṯr*, where it is used for its sound value only.

The sign ☥ is another of the signs which are never purely phonetic. Its original meaning is a tie; the loop encircles some object, a bow is made with several twists of the material at the knot, and the two ends hang loose (figs. 9, 10, 11). As a shoe-latchet it is placed with the sandals among the pictured possessions of the dead on Middle Kingdom coffins; but its use as a girdle was probably even earlier; and as it covered and protected the life-giving organs, its name *'nḫ* was transferred to the meaning "life, to live." A further transference of the meaning is seen in its use when combined with the sign of a man speaking , where it means "oath," for the great oath of the law-courts was by the life of the Pharaoh.

It will be seen that in Egyptian, as in Chinese, the different meanings of homophones can be shown by the use of "determinatives." Thus, which means "house," can be given an entirely different meaning by the determinative of motion, ; it then means "to come forth." *dmi* can mean either "a town" or "to reach," according to the determinative which follows. In the same way *mḥ* may be either "a cubit" or "to fill" according to the determinative.

In both Egyptian and Chinese the method of writing, which was evolved from the primitive picture-writing, was the kind which we now call *rebus-writing* and is used chiefly in children's puzzles. In rebus-writing the picture of an object is used for its sound-value and not for its meaning as a picture. Thus in Egyptian, was originally the eye, and occurred therefore as the determinative of "to see"; but in common use it represented the verb "To do, make," because the two words *yr* "To do" and *yr.t* "Eye," were homophonous. Another good example of the rebus-writing is the sign (figs. 12, 13, 14); it is a picture of a hoe made of two pieces of wood lashed together where the blade and handle meet, and a rope is tied across to prevent the blade from breaking when in use. The early name of the implement was probably *mr* "the bound thing," *mr* meaning "to bind" (Copt. ⲙⲟⲩⲣ). The sign retains this meaning to the last, but its common use is as a phonogram in any place where the syllable *mr* with a vowel between the two consonants, was required, as in *mrḥ.t* "Ointment." The primitive hoe (fig. 15) also survived in the hieroglyphs; it is a branch lopped roughly into shape, and is used for the phonogram *nw*. When a blade is attached and it becomes an adze (fig. 16) it still reads *nw*, unless the blade is striking a piece of wood when it is called *stp*.

So far the two scripts appear to have developed on similar lines, but the Chinese was hampered by a monosyllabic language, whose homophones are distinguished by the tone in which they are pronounced. These two disabilities prevented any real progress. In Egypt the language approximated to the Mediterranean and Semitic groups in that it had words of more than one syllable and that tone was of little, if any, importance. Chinese has no formal "parts of speech," for there are no means in a strictly monosyllabic language of forming

1

MURRAY. SAQ. MAST. I
PL. X

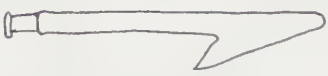
2

PETRIE. ROYAL TOMBS I
PL. IV. 3

3

PETRIE. SCARABS & CYLINDERS
32,62

4



NAQADA. PL. LXV. 8

5

PETRIE. MEDUM. FRONT. 13

6

STELE OF HEKNEN
MEDUM. PL. XVI.

7

NAQADA. LXI. 14

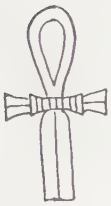
8

ROYAL TOMBS I
PL. XXXI. 13

9

SAQ. MAST. I pl. XI.

10

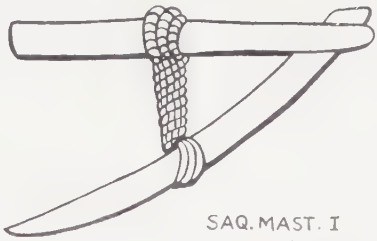


SAQ. MAST. I
PL. XL. 86

11

ROYAL TOMBS. I
PL. X. 13

12



SAQ. MAST. I
PL. XL. 75

13

ROYAL TOMBS I
FRONTISPIECE

14

STEINDORFF GRAB DES TI. PL. CXI

15

DAVIES. PTAHHETEP I
PL. XIII. 276

16

DAVIES PTAHHETEP I
PL XIII. 277

declensions and conjugations; a verb and a noun are interchangeable, the only means of understanding a sentence is by the order of words.

In Egyptian, though the order of words is important, it is not all-important, for in Egyptian there are particles which are so used as to form a kind of conjugation and elucidate the sense of a sentence.

Perhaps the most important difference in the two scripts is the fact that the Egyptians evolved a true alphabet from the picture-language, an alphabet by which foreign words and names could be spelt. This also enabled a writer to represent to a certain extent the vocalisation of his own words and their inflections.

The similarity of the two scripts therefore is only found in the early stages, where they approximate to other primitive picture-writings. When the language began to affect the script, the difference in development is at once visible.

M. A. Murray.

A TEXTILE FROM THE HOOD COLLECTION OF EGYPTIAN ANTIQUITIES.

The fragment of patterned linen shown in the illustration (*Frontispiece*) is believed to have come from Thebes, as did so many of the specimens collected by the Rev. Frankland Hood during the years 1851–1861. There is no evidence as to its date, but Sir Flinders Petrie thinks from the character of the weaving that it can probably be assigned to the period of the New Kingdom, and not in any case to so late a time as the Roman period. It appears to be part of a border with a fringe, probably from a garment, and measures about 17 c. by 11 c., exclusive of the fringe ; the fringe itself in its present condition measures about 13 or 14 c., and, no doubt, when stretched out to its fullest extent would be nearly 20 c. long. The border is ornamented with an interesting design in blue, red, and the natural colour of the linen, all so much darkened with age that a photograph cannot give a real idea of the beauty of the colouring.

A count of the patterned portion of the textile (marked x–x in the illustration) reveals a strange phenomenon—there are 426 warp threads at the top of it and 770 at the bottom, those at the top being in the natural shade, which for convenience sake we shall now call white, and those at the bottom being white, red, and blue, with the blue predominating. At first sight, one may be tempted to think that this strange design of stripes and wedge-shaped forms could be more easily carried out in a tapestry weave, and that what I am describing as warp may be in fact the weft ; but an intimate examination shows that the manner in which the design is carried out, though difficult enough in warp pattern technique, would be impossible in a tapestry weave.[1] There is no doubt in my own mind that the textile was woven as shown, with the warp threads running lengthways of the stripes, the selvedges having been at the sides, now torn away, and the fringe at the end of the warp. The border is the last part of the piece to be woven, and the pattern is of a very primitive type, *i.e.*, one made by the warp threads.

It can clearly be seen that the dark warp threads have been added in groups of 4–6 threads together, put through as weft in a loop and hanging down on either side of the white wedge which they outline to become subsequently incorporated into the warp ; and whenever a group of new threads is added a certain number of the original white warp threads disappear. The manner of the insertion of the new threads is in a loop at the broad end of the wedge, thus :—

Fig. 1.—Weft threads added to become warp.

Three throws of plain single weft were then made before another loop was inserted. The bulk of these threads are, as already said, blue ; the red threads, which figure only in two narrow bands of 8 threads each, are introduced in like manner, four threads at a time.

The weaving problems involved will be better understood if the reader will turn the photograph upside down and look at it in the direction in which it was woven, *i.e.*, towards the fringe. It will be seen that once the wedges were finished the weaving must have been straightforward enough, merely plain weave, for, the check pattern set up, alternate blue and white in the warp would come up automatically. The difficulty lies in the formation of the wedges ; as each loop of new threads was added, their ends would have to be passed either through heddle leashes or over a shed rod and be tied to the back beam before they could be woven in, which must have been a most delicate operation. It is extraordinary that the fabric does not show more weak and faulty places where the coloured threads were added and the white removed ; there is only a little disturbance and a few cut ends can be seen under a lens. A certain number of the original white warp threads, *i.e.*, 16 in the two plain bands and about 75 in the three check bands, do indeed run right through to the fringe and so help to keep all firm ; but still no less than 335 warp threads are taken out gradually down the slanting sides of the wedge pattern ! The lost threads are more than replaced by the coloured ones, for, as already stated, there are 354 more threads at the bottom, *i.e.*, the fringe end, than the top. Yet the fabric does not increase in width, for the warp threads have been drawn in closely together entirely covering the weft and giving the pattern its delusive tapestry appearance. Thus is achieved the complete change of texture from an open weave in white, as seen at the top of the piece, to a close weave in warp pattern, in red, white, and blue, at the bottom.

This abundance of threads at the end of the weaving gives a rich appearance to the fringe. It is kept in place by a couple of twisted threads held firmly by a stitch between each cord of the fringe. The cord itself is made of eight threads twisted together in two groups of four, and then all retwisted together in the opposite direction. This type of cord is common on Ancient Egyptian textiles, and it has survived on the fringes of the cotton " tobs " woven and worn in the Sudan, and on the fringes of Beduin woollen rugs—in Arabic it is called the " taftul," the " twist."

The measurements of the piece speak for its fineness. The dyeing must also have been good, for the red and blue are still strong though darkened with age. Possibly the colours were obtained with madder and indigo, though this cannot be certain ; in shade they much resemble the red and blue of the Rameses Girdle at Liverpool Museum.

The primitive character of the weaving is very marked ; it is such as would be carried out on the simplest of looms, one possibly with no more apparatus for making a shed than a rod heddle and a shed rod, and where the weaver was accustomed to put in pattern with his fingers and could allow himself a free and fantastic playing about with warp and weft. Such in fact was the horizontal loom of the Middle Kingdom in Egypt, as shown in the Tomb of Chnem-hotep. Different weaves can be made on this loom, either with warp and weft visible, or warp covered with weft (tapestry), or weft covered with warp ; but the last is much the easiest, owing to the natural tendency of the warps to draw together. It is, in fact, the preferred weave of the Beduins to-day, both for plain tent pieces and patterned ones. It is tempting to suggest that warp-pattern weave was known and developed on the Middle Kingdom loom, while tapestry weave came in with the vertical loom of the New Kingdom. Both weaves continued to be used ; but in Roman times the much greater possibilities of tapestry weave

for patterns and designs of all kinds became realized and developed in the Coptic "weft mosaic," as L. Start called it, and warp pattern disappeared from Egyptian textiles except in the form of very narrow bands.[2] The evidence is slender, but one may mention here two of the outstanding Ancient Egyptian pieces in warp pattern, *i.e.*, the Rameses Girdle and the fine piece in the Victoria and Albert Museum; also I venture to suggest that when the magnificent textiles from the Tomb of Tutankhamen are more fully studied certain of the pattern bands on the "dalmatic"[3] may prove to be also in this warp pattern weave.

The textile we figure here comes, as has been seen, into this warp pattern class; but so far I have found nothing to compare with the peculiar way in which the pattern is carried out, in which it appears to be unique.

1. I have proved this to my own satisfaction by weaving a reproduction of part of the border as a warp pattern.

2. Some of these are in tablet weave.

3. *Illustrated London News*, August 3rd, 1929, p. 197.

GRACE M. CROWFOOT.

RHYMES AND RAIN-CHARMS.

ALL countries have songs sung to and by children, and Egypt is no exception. Undoubtedly such songs existed in ancient times, but they have not come down to us in recognizable form. Comparatively few of the modern nursery rhymes of Egypt have been collected; of those few the antiquity cannot be proved, though they probably come down from Pharaonic times. It is not surprising that the ancient songs of the children were not recorded in writing, for it is only within the last two centuries that collections of children's rhymes were made, originally for the sake of the children themselves, then later on for scientific study. As neither of these two reasons existed in ancient Egypt the children's songs are almost entirely lost, except for the few which may be regarded as survivals.

The collections of modern Egyptian nursery rhymes are far from exhaustive. Mr. J. Walker has published a number in "Some Folk-Rhymes of Egyptian Children" (*Folklore*, XXXVIII, 1927, p. 375), giving references to other collections. These are, however, only a few out of the hundreds used in Egypt, a country which has as rich a store of nursery rhymes as England. Though, as in all countries, many of these songs have arisen merely to amuse children, a certain number are survivals of ritual words. I called attention some years ago (*Folklore*, XXXVI, 1925, p. 186) to a ritual finger-counting which dates back to the XIIth dynasty. This shows that counting rhymes had probably a definite

(1)

هَنْ هَنْ هَنْ يالّلى فلتين الدنيا هَنْ
همّنظتك بالاوليا وبكل شيخ ميت من

---

(2)

لما قالوا لا دا غلام استشد فيهم أبوه وقام
وجبوني الحبايب صنوني وبعد فرحتي ما جاني منام

(3)

ليلتك ياصبي ما احلاها ليلتك كانت هنا وسرور
باتت حبايبي فرحانة وعدوتي باتت بالضرور

(4)

لما قالوا لا دى بنيّة قلت ياليلة هنيّة
بنتي الجميلة أهي جيّة تنفعني وتحن عليّ

(5)

يامولو وايش حلاك اياك عالة الموت سبالك
وبعد جا الموت يخطيك وهو طالع ياخد عداك

To cast out a devil.

1 الحجر مات
2 فاح الخبر
3 غسلناه
4 بشحة الحمار دكر
5 كفّنّاه بجشر البصل
6 دفناه سبعه منّا وسبعه منكم
7 يا اولاد مطر

religious value at an early period of history and have degenerated in course of time to their present lowly position. The ritual finger-counting was to be used by the soul of a sorcerer (*i.e.*, a learned man) to enable him to enter the kingdom of Osiris, for that god would not receive anyone who could not count his fingers. This religious aspect places a counting rhyme in the same category as a spell. Our own "This little pig went to market," and the modern Egyptian song of the Egg ("This is the Egg. And this is the one who brought it. And this is the one who boiled it. And this is the one who peeled it. And this is the one who ate it all up.") are played and sung in the same way, by pulling in succession the fingers or toes of the baby at each sentence, and ending the last sentence on a high note, not unlike the ending of a chant.

Of the rhymes given here, the first five are lullabies. It is interesting to note the feeling towards the girl-baby; her arrival is hailed with as much pleasure as the boy's. This fact suggests that the songs are pre-Moslem, possibly even pre-Christian.

1. Hai, hai, hai! yalli maleyit iddunya dai
   Haffaztak bil awliya wi bikul sheikh mayit hai.
   Hai, hai, hai! You that have filled the world with light
   I asked the saints to guard you, and asked every sheykh who is dead or alive.

2. Lamma 'aluli da gholam, ishtadd dahr abuh wi 'am
   Wiguni il habeyib hannuni, wi min farhiti ma gani manam.
   When they told me it was a boy, his father's back was straightened,
   And friends came to congratulate me, for joy I could not sleep.

3. Leyltak ya sabi ma ahlaha, leyltak kanit hana wi surour,
   Batit habayibi farhana, wa'diwitti batit biddarour.
   How sweet is your night, O boy, your night was all happiness and pleasure.
   My friends passed the night pleased, and my enemy passed the night depressed.

4. Lamma 'aluli di binayya, 'ult ya leyla haniyyah,
   Binti ilhabiba ahi gayya, tinfa'ni wi tahen 'alayya.
   When they told me it was a girl, I said what a happy night it is,
   My loving daughter is coming to be useful and loving to me.

5. (The pronoun is varied according to the sex of the child.)
   Ya helu wi aish hellak, iyak 'asallah il mout yinsak.
   Wen ga il-mout yikhattik, wi hu ta'ale' yakhud 'idak.
   O sweet one, what has made you sweet? I wish to God that death may forget you,
   But if he comes to trample you, while he is coming may he take your enemy.

The words for the ritual of casting out a devil appear to belong to a rain-charm.

1. Al-hagar māt.
2. Fah al-khabar.
3. Ghasalnāhu.
4. Bi-shahha'l himār dakar.
5. Kafannāhu bi-gashr al-basal.
6. Dafannāhu sab'a minna wa-sab'a minkum.
7. Ya aulād matar.

1. The stone is dead,
2. The news has spread,
3. We have washed it
4. With the excrement of a male donkey.
5. We have shrouded it with skins of onions.
6. We have buried it, seven of you and seven of us.
7. O children of the rain.

(In a whisper) Gizz.

Each person puts a finger under the stone while the rhyme is repeated, and at "Gizz" they lift the stone up and throw it away.

The washing of the stone, the epithet *Children of the Rain*, and the long drawn-out second consonant of Giz-z-z, which imitates the swishing sound of heavy thunder-rain, all point to a magical means of obtaining rain. The reference to the donkey suggests that the ritual may belong to the primitive cult of the god Seth, who was the god of thunder-storms and to whom the ass was sacrificed. Rameses II claimed, in his dealings with the Hittites, to have power over the weather. When the Hittite princess was sent through Syria in the rainy season to Egypt to be married to him, he offered a sacrifice to Seth (Sutekh) for fine weather, and "his father Sutekh heard every word." Again in the letter from the Hittite chief to the prince of Kodé Rameses II is spoken of as the great overlord, "Kheta is in his power alone; if the god accepts not his offering, Kheta will see no rain." (Anastasi, II, pl. ii, ll. 1–5).

The sacrifices for rain are not specified, but it is perhaps legitimate to suggest that they were the same as in Palestine. The two countries were intimately allied in civilisation, and there was continual intercourse between them throughout the period of the New Kingdom; it is therefore not unlikely that the Egyptians adopted a method derived from their colonies, where rain was of the utmost importance. One of the earliest historical records of such a sacrifice in Palestine was when the prophet Samuel "took a sucking lamb and burnt it wholly before the Lord; and Samuel cried unto the Lord . . . [and] the Lord thundered out of heaven." (1 Sam. vii, 9, 10.) The words imply that the lamb was burnt alive, a not uncommon method of sacrifice amongst savage tribes. On another occasion (1 Sam. xii, 18) Samuel "called unto the Lord; and the Lord sent thunder and rain." In the next generation human sacrifice was offered, when seven sons of Saul were sacrificed ("hanged before the Lord") on account of a drought and consequent famine (2 Sam. xxi, 8, 9). Elijah's great competition with the prophets of Baal on Mount Carmel was also a rain sacrifice. The ritual seems to have been somewhat the same that Samuel had used. Both parties killed a bullock and laid it on an altar to be burnt, but with the stipulation that no fire was to be set to the pile. The savagery of the rite is seen in the outpouring of their own blood by the priests of Baal, and later by the killing of those priests at the water-side as human victims to the Rain-god.

I have to thank Dr. Hasan Sadek, of the Geological Survey of Egypt, for the lullabies; Dr. R. Engelbach, of the Cairo Museum, for the Rain-charm; and Mr. Fulton, of the British Museum, for checking the transliteration and translations.

M. A. Murray.

THE UNITY OF MAN.

" Saxon, Norman, and Dane are we "—the metre could not include Rome—and Germans nowadays claim a pure " Aryan " descent ; but the roots of human nature go deeper than race and colour. Anyone with eyes to see may recognize our kinship with Rome in any collection of Roman sculpture, for features, attitudes, and lettering are familiar : our statues of soldiers on horseback are very like those on Roman tombstones ; we show our medals and they showed theirs ; and we still use the letters of their inscriptions. The dedication to a prefect " begotten in Mauretanian soil, buried in foreign earth " [1] has a similar ring to Macaulay's epitaph on the Jacobite who " languished in a foreign clime " and " pined by Arno for " his " lovelier Tees." But a greater effort of imagination or some more specialized knowledge is needed to realize that the conventionally-portrayed figures and the hieroglyphic inscriptions on ancient Egyptian monuments represent and describe human beings who were once moved by feelings and ideas akin to our own. This similarity is clearly shown in their nomenclature and, to some extent, in their phraseology, as I hope to indicate in the following pages.

The foreign queens of Egypt were given Egyptian names : Princess Giovanna of Italy took the Bulgarian equivalent of her Italian name, Ioanna, on her marriage to the King of Bulgaria. Similarly, foreigners who settled in England anglicized their names ; Sainliens, a Huguenot refugee, who taught French for a livelihood in Elizabethan London, found Hollyband a more pronounceable name,[2] and Maximilian Poictrin, a sculptor from Utrecht, who became master-carver to King James I and carved the tombs of Queen Elizabeth and the infant princesses in Henry VII's Chapel in Westminster Abbey, was known as Maximilian Colt.[3]

In ancient Egypt, orphans carried off in raids were given such unsympathetic names as " Not known and not asked for," " Not known of them," " Not known and not established." [4] Our XVIIth-century parish records show that we overcame the difficulty in a more humane way by calling foundlings after the part of the parish in which they were rescued : " William Longlane," " William Ducklane," " Bartholomew Close," or by giving them encouraging names such as Thomas Fortune and Mabel Luck.[5] Simon Trouvé was a French foundling.

A child was named after his paternal grandfather in Egypt,[6] even as our children are to-day, and the same feelings seem to underly the custom of naming children after a dead relative in both countries and epochs. In ancient Egypt may be noted Senu-onkh, " The brothers live " ; Atef-onkh, " His father lives " ; Sennu-onkh, " The second lives " ; and Khnedu-onkh, " May the children live ". The parish registers of St. Bartholomew's, Smithfield, record three sons of John and Judith Millett, who were all called John : two died in 1631 and 1636 respectively, and the third was

baptized in 1645. Sir Christopher Wren had an elder brother, also a Christopher, who died in infancy a year before the architect's birth.[7] Sir John Wingfield (died 1481) gave his baptismal name to two sons, and called two daughters Elizabeth. It is possible that the elder Elizabeth had been marked out for the vocation of a nun before the younger was born, as nine other children came between; but both Johns are mentioned in a Commission as "John Wyngfeld . . . the elder, esquire, and John Wyngfeld . . . the younger, gentilman."[8]

The giving of royal names in ancient Egypt can often be used in dating.[9] This custom is traceable throughout the ages, and we are able to date generations by names such as Alexandra, Elizabeth, Albert, or Diamond.

Theophorous names form the largest section of personal names in Egypt, though they are not always recognizable as such at first sight. In fact, the popularity of certain gods' names at certain periods is an index to the rise of their cult. "Given of Sebek," , and Dorothea and Theodora are close parallels; and stands for ,[10] even as Dolly is an abbreviation of the English "Gift of God." In many Egyptian names, the name of the divinity was omitted or figured in the form of a pet name. Many similarities are to be found under this heading. In those cases where the Egyptians placed the full name and the abbreviation side by side, it is possible to trace a pet-name to its source. For instance, an inscription at Vienna names a woman , Lady of the Sycomore called Anauhat, and thus explains the N.K. name Ananhai (*B.M.* 141, 146, 167), and variants with a tree sign.[11]

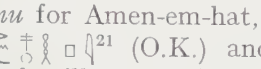
Many personal names that are apparently names of animals[12] are, in reality, abbreviations of theophorous names, such as Mā̆d-em-hequ, "The lion among princes", etc. The names of several animals, however, seem to be used as personal names without any reference to a divinity. Of these, some have been traced in the oldest period only, *e.g.*, Hippopotamus, Crocodile, Swallow, Scorpion, Dove, Tadpole, whereas others, such as Frog and Dog, do not appear before the New Kingdom. Somewhat curiously, Cat and Mouse are the only animal names that occur at all times. It is probable that various reasons lay behind the giving of such names: a child called Crocodile might perhaps escape a horrible fate if it fell into the river. Probably these names were merely pet-names in the first instance, and it is perhaps significant that in the earliest certain example of the use of an animal's name, Hethes, as a personal name,[13] it is expressly stated to be the "little name" of a noble whose "big name" was Kho-bā̆u-seker. It is interesting to note in this connection that St. Columba, who was born in Donegal in the year 521 A.D., received at baptism the name of Crimthann ("Fox"), which was a common personal name in those days in Ireland, but while he was still a child he was given another name, Columba ("Dove"), because of the simplicity of his nature; this name replaced his baptismal name and became his name in religion.[14]

Nicknames from animals are common in English too, and here the metaphor is usually fairly obvious. Though modern women would probably object to being called Hippo or Crocodile, yet "shrew" was used for both sexes up to Shakespeare's day and was a libel on a harmless little creature, the shrew-mouse.[15] "Puss" and "Mouse" are terms of endearment in English also, and so is "Pigeon" in Ireland.[16]

The derivative Pussy is closely related in construction to forms such as *Unshesh*, from *Unsh*, wolf, by duplication of the final consonant, which was

common with M.K. names, *e.g.*, *Uăzez* from *Uăz*, *Nefrer* from *nefer*, *Senbeb* from *seneb*, etc.[17] And, curiously enough, the Horus name of a Pharaoh finds an exact parallel in the title Dauphin, which commemorates the absorption into the French monarchy in 1349 of the lordship of Dauphiné, the cognizance of which was three dolphins.[18]

Turning a name into a pet-name does not always save breath, and playfulness and affection have their share in the process. It must have been genuine affection that led to Amen-em-hat II being called "Amenu" (and probably Ameny),[19] and this prince may join the goodly fellowship of bluff King Hal, good Queen Bess, and Prince Eddy.

Unless Sety be a similar abbreviation to Ameny,[20] the only other instance in ancient Egypt of a royal nickname is Sessu for Rameses II, though it is not surprising to find that long theophorous names were frequently shortened in the case of less exalted persons. Turning a "big name" into a "pretty name" was sometimes done by suppression of the predicate element, as in *Ameny* or *Amenu* for Amen-em-hat, or by suppressing the divine element, as in [21] (O.K.) and  (N.K.).[22] The last two examples illustrate the different terms for nickname in the O.K. and N.K. respectively.

Though long phrase-names in English, theophorous or otherwise, now bear a Puritan hall-mark, it should be remembered that Ronald, Reginald, and Reynard the Fox are all forms of the Saxon *Reginhart*, meaning Strong in Counsel.[23] This is but one example of the many old Teutonic names that no longer suggest their original meaning at first sight, and it is interesting to trace the same processes of abbreviation and endearment at work as in Egyptian. In modern German, "Arnald may now be Noll or Nolle, or Nölken or Noltze, or, when the other half has been kept, Arndt and Ahrens; while the derivatives, rushing in from many quarters and dialects, have led to the strangest variations. Take the fruitful root Theudo (which lives in England in Thetford); it leads now to Teuffel, which many believe to be the very Devil, now to Todt, which the uninstructed naturally think of as death, now to Tilly, Dilly, Dux. . . . Such is the force of endearment."[24] A physical peculiarity accounts for Ptah-hotep *deskr*, ,[25] and William Rufus; whilst , *Neferu*, may be matched with Mabel, Grace, and Bella, or *Meryt-ata* with Désirée. The same tribute to courage is expressed in Heqa-Yeb and Coeur-de-Lion.[26]

Punning on names has ever been a tempting exercise: Pope Gregory made a whole series of puns on the nationality, province, and ruler of the slaves from Britain; Lord Birkenhead's motto is *Faber meae fortunae*. The custom was known in Egypt, for on the stela of one Heqa-Yeb his name is used as an epithet: "I was *heqa-yeb* (*i.e.*, one mastering his heart) in going forth in dangerous situations while everybody else was shutting his door."[26]

Like ourselves, the ancient Egyptians called their ships after their kings, for with the *Harry Grâce à Dieu* we can set *Thothmes II praising the Two Lands*, , though for a comparison with *How loved is the crew of N-User-Ra*, ,[27] we must turn to the Army (K.O.Y.L.I.).

In the expression of ideas may be found many similarities, for, though numerous Egyptian idioms are necessarily strange to us, some are very like our own. "Like father, like son" was expressed in almost the same words, "As the son, so is he who fashioned him," .[28] In the phrase , *okh.m.khannu*, to quench the rising, we have the

image of fire as in English. "My heart's in the Highlands, my heart is not here," and, using similar language, Sanehat begged to be allowed to return to his own country where his heart sojourned.[29] Pharaoh is called "the good shepherd," , and the verb *minu*, to herd, is derived from , a mooring post, from the herdsman's habit of tethering grazing cattle.[30] This custom still holds in Egypt and it is also common in Westphalia, where fences and walls between houses and fields are not often seen. (In parenthesis, one notices several curious parallels between Egyptian and German *Kultur*, or "civility," as Stow would have said: the term for the women's quarters is used for the occupants themselves both in *ap.t*, , and *Frauenzimmer*; and a title of Egyptian queens, "What she says is done", seems to find an echo in the German saying, "I am the master in my house, what my wife says is done").

As the jackal is the god of cemeteries, it is tempting to trace a similar idea to that expressed in "God's acre" in the picture of a jackal placed above the word-sign for field, which occurs on boxes for canopic jars, particularly as the jackal is so often used in sportive hieroglyphs. For in this form of writing the jackal may replace walking legs (as in the name Im.hotep), whilst three jackals' skins in the word-sign for *mes* may be replaced by three whole jackals. The playful spirit outlived hieroglyphs, as we may see in so many canting heraldic shields (*e.g.*, a bull for a man called Bull, shells for Shelley, and so on); in rebuses such as a barrel pierced by a bolt for Prior Bolton's name, and in some representations of incidents of the Passion.[31] Standing upon an enemy [32] was a motive that was widely used for showing victory in ancient art: Horus stands on crocodiles: Roman emperors were portrayed on their coins riding down various animals that represented the foe; a vanquished dragon stood for heathendom in the iconography of several saints (as St. George, St. Michael, and St. Margaret), and this creature became the symbol of martyrs who took the faith to new countries.[33]

L. B. Ellis.

References.

1. Bonner Jahrbücher, 129, 1924.

2. *The Elizabethan Home.* Discovered in Two Dialogues by Claudius Hollyband and Peter Erondell. Edited by M. St.Clare Byrne.

3. E. A. Webb, *Records of St. Bartholomew's Priory*, 1921.

4. Petrie, *A.E.*, 1925, iv, p. 106–7.

5. E. A. Webb, *op. cit.*

6. Gardiner and Sethe, *Egyptian Letters to the Dead*, p. 1: "The identity of the orphan son Iy is confirmed by the name of another Iy, called 'Iy the elder,' in line 3, and 'thy father Iy' in line 9, for it is quite in accordance with Egyptian custom that a child should be named after his paternal grandfather."

7. See the reproduction in facsimile, with explanatory footnote, in C. Whitaker-Wilson's *Sir Christopher Wren*, of an interleaf in a book once in the possession of Dean Wren, the architect's father, upon which Dean Wren had recorded particulars of the births and deaths of his children.

8. J. M. Wingfield, *Some Records of the Wingfield Family*, whence also (p. 22): "It was not till some years later that a second baptismal name was ever given. One grandson of Sir John . . . received the double name of Edward Maria in about 1516, but William Camden in his *Remaines*, published about

1605, mentions this case as one of the earliest instances of an Englishman having a second baptismal name."

9. *Ancient Egypt*, 1924, p. 76. But names like " (King) N.N. lives " were handed down from father to son (see Junker, *Die Stele des Hofarztes Irj* in *Zeitschrift* 63, 1927, p. 56 ff.). This was particularly so in the case of chantry priests (H. Balcz, *Zur Datierung der Mastaba des Snofru-ini-š̃tef* in *Dahšûr* in *Zeitschrift* 67, 1931, p. 10.

10. *Mar. Mast.* D.65.

11. Erman, *Zur Schreibung der Personennamen* in *Zeitschrift* 44, p. 107.

12. H. Ranke, *Tiernamen als Personennamen bei den Aegyptern*, in *Zeitschr.* 60, 1925, p. 76, *f.*

13. *Saqq. Mast.* I, pl. 1, Dyn. III.

14. John A. Duke, *The Columban Church.*

15. Weekley, *Romance of Words.*

16. " I kiss you, I kiss you, my pigeon, my own ; Ah, how I shall miss you when you have grown." (W. B. Yeats, *Cradle-Song.*)

17. Ranke, *op. cit.*

18. Weekley, *op. cit.*

19. Petrie, *History*, vol. 1, 10th ed., 1923, p. 172

20. Sethe, *Kurznamen auf j* in *Zeitschr.* 57.

21. Sethe, *ibid.*

22. Sethe, *Ueber einige Kurznamen des neuen Reichs* in *Zeitschr.* 44.

23. Weekley, *op. cit.*

24. *Times Lit. Supp.*, 30th Sept., 1926, p. 646, review of Cascorbi, *Die deutschen Familiennamen.*

25. Saqq. Mast. Pl. VI.

26. B.M. Sculpture 1671. See *J.E.A.*, XVI, 1930, pp. 194–9, *The Stela of Heqa-Yeb.*

27. *Sahura* II.

28. *J.E.A.*, III, 1916, p. 243.

29. Spiegelberg, *Das Herz als zweites Wesen des Menschen*, in *Zeitschrift* 66, 1, 1930, p. 36, note 5.

30. A. H. Gardiner, *The Egyptian word for " herdsman," etc.*, in *Zeitschrift* 42, 1905, pp. 116–23.

31. Some incidents or emblems of the Passion were frequently represented by ideograms, *e.g.*, a cock crowing showed Peter's denial of Christ, an ear attached to a sword stood for his cutting off the ear of Malchus, and water pouring from a jug over two hands represented Pilate washing his hands. (The last emblem is very suggestive of the *uab* sign.) For these and other ideograms see *inter alia* the *Sforza Book of Hours*, f. 167, and bosses in Winchester Cathedral.

32. The same motive was used on the memorial slab to Thomas Mowbray, Duke of Norfolk, who died in exile in 1399. On this slab the Mowbray lion is standing upon the King's helmet, which is covering the head of the Bolingbroke swan ; the meaning being that Mowbray would have destroyed Bolingbroke but for King Richard's intervention and protection. (Lord Howard of Penrith, *The Finding of the Mowbray Stone*, in *Cornhill*, March, 1933.)

33. Mâle, *L'art religieux . . . XIIIe siècle.*

REVIEWS.

EURASIA SEPTENTRIONALIS ANTIQUA. VII, 1932.

This very important work published at Helsingfors, edited by Prof. Tallgren, is not sufficiently familiar to English readers. This number opens with a finely illustrated article on the early Iron Age in Russia by the editor. A study follows of portions of bows from Carnuntum—the old camp of Marcus Aurelius. Excavations at Kharkow, 300 miles north of the Crimea, yield gold ornaments, triangular Scythian arrow heads, and flat arrow heads with side-tang. Discoveries west of Tiflis in the Caucasus include fine bronze socketted axes and daggers with the ribbing, described as slightly raised symmetric ribs, of the same character as on the ribbed daggers of the first palace period at Gaza; also wheel-shaped cheek pieces to horse bits.

A paper on prehistoric Caucasus, by Prof. Hanchar, has figures of the "sun-flower" curved hair pins, also found at Gaza. The toggle pins are well illustrated, with ringed, spiral, and criss-cross patterns; a map shows the distribution of these to be entirely on the Caspian slopes of the Caucasus. As these types are all known in the first palace and that of the Hyksos at Gaza, they are strong evidence of the source of those invaders.

A report on archaeological work in Russia, by an Esthonian student, states that all correspondence with foreign archaeologists is forbidden; communications can only be made through the Central Academy, classified according to political sense, and the Academy is the only avenue for archaeological connections. Both in Leningrad and Moscow collections are to be arranged by political types of government. Prof. Tallgren in Finland is doing a great service by maintaining a free port for discovery and research.

The paper by Prof. Avdief in this number deals with later connections of the Caucasus, but it is much to be hoped that the early Copper Age civilization will be explored, for its relation to the south.

ORIENTAL INSTITUTE, CHICAGO.

XIII. *Tell Asmar and Khafaje.* By H. FRANKFORT, T. JACOBSEN, and C. PREUSSER. 8vo, 112 pp. 1932. $1.5.

This site is 50 miles N.E. of Baghdad. It was carefully handled by Dr. Frankfort, following the lines of building and avoiding destructive trenching. At the surface it is of the age of Khammurabi, and below extends to more than three centuries earlier. The names of 19 rulers were recovered, and record of three rebuildings of the palace. Beyond pottery figures of deities and a cylinder, no small objects are published.

Khafaje is a fortified town about 600 feet long, with double walls; the interior is not yet examined. Figures are given of heads from statuettes of alabaster and pottery, and one of shell, all of Sumerian type; a narrow copper axe, and a dagger, as well as a stone macehead with two lions, couchant, on it. There were no name inscriptions.

XIV. *Discoveries in Anatolia.* By H. H. VON DER OSTEN, R. A. MARTIN, and J. A. MORRISON. 8vo, 149 pp., 1933. $2.0.

This is mainly concerned with Alishar, about 130 miles N. of Aleppo. Some areas were cleared from the Roman down to the Neolithic level. This bore the earliest pottery, with squares and crosses incised. There is estimated to be

yet 35 feet more down to virgin soil. In the Hittite layer seals were found, and pottery rhytons. Later, there is a fine socketted bronze chisel, an early instance. Tablets were found left by traders from Iraq, as at Kul Tepe. Such a long range makes this site of great value if everything found is levelled and published.

Gâvur-Kalesi is about 35 miles S.S.W. of Ankara. Hittite rock carving and iron tools show the periods. Pottery whorls and sherds are probably early Phrygian.

Survey and exploration by J. A. Morrison is a satisfactory record of good relations with the peasantry, and careful observation and surveying. A great square reservoir of Hittite time was found about 70 miles E. of Kaisarieh, with a short well-cut inscription. This is headed by a disc of 13 radii (lunar months ?) and widely spread wings. Eleven large signs below, with three symmetrically repeated, are a promising group. A fine Hittite stele with figures is given in photograph and drawing, from Sivas museum. A row of Hittite slabs was found in a wall.

XV. *Excavations at Ancient Thebes.* By I. Hölscher. 8vo, 65 pp. 1932. (Cambridge University Press.) 5*s.* 6*d.*

This describes details of Medinet Habu, the lay-out of the whole plan, and the quay in front of the temple. The small palace at the south of the first court has been carefully studied, and is compared with that of Ramessu II at the Ramesseum. The inflection of the temenos at the N.W. corner led to the discovery of the temple of Ay and Haramheb. An ostrakon here which gave the date of year 27, pachon 9, the day of entering in of Haramheb, is doubtless dated from the 1st of Akhenaten, and may refer to the accession of Haramheb, as there were at least 27 years in the time of the three kings before him. A colossus of Tut-ankh-amen, never erected, was also found.

At the Ramesseum some further excavation was done in search of early details. Along the north wall of the temple was an earlier temple of Sety I; and regard for this seems to have deflected the direction of the Ramesseum so that it is askew to the great temenos wall around the brick store rooms.

In connection with the XVIIIth dynasty temple of Amen, in the forecourt of Medinet Habu there was found the tomb of king Har-sa-ast (832–826 B.C.) with his sarcophagus, stolen from the tomb of Hentmara, daughter of Ramessu II. A summary of the whole study, in German, with 29 plates, is issued as *Medinet Hebu*, by Uvo Hölscher, by Hinrichs, Leipzig, at 5.40 marks.

XVI. *Archaeology and the Sumerian Problem.* By H. Frankfort. 8vo, 72 pp., 6 pls. 1932. $1.0.

This is an important review of the material of the age before Sargon. A map shows the regions of the three chalcolithic civilizations—Anatolian-Caspian, Syrian, and Iranian. The conclusion is that four cultures passed between the first occupation and the rise of the dynasty of Akkad (Sargon), the end of Sumerian culture.

The latest is of the *Early dynastic age*, stated as 2900–2500 B.C.=VII–XIth dynasties by objects found; the age of the great royal tombs of Ur. At Kish there was a mixed people, round head at first and long head later, or Armenoid and Mediterranean types.

Earlier is *Jemdet Nasr* near Kish. The pottery is like that at Susa with proto-Elamite tablets; animal-shaped vases are common; the strange "Blau" engravings also belong here. Seal designs have animals in rows, especially goats

The rows of animals, and animal vases accord with the 1st dynasty. Before that is the *Uruk period.* Here small, oblong bricks were in use, preceding the plano-convex. The pottery of this age is found widely in Iraq. Pictographic tablets begin, and both stamp seals and cylinders.

The first period is that of *El Ubaid.* The remains are found at each place on virgin soil, due to the first inhabitants who found the plain habitable. This age is before the " Flood " at Ur, having the uncanny female figures with peaked faces and skew eyes. Pear-shaped mace heads are found, which belong in Egypt to S.D. 40, but may be earlier here. This period overlies that of Susa I, so Elam was civilised before Iraq was settled. Copper tools were usual. The haft hole in hammers was probably only made in stone. Writing was unknown, but stamp seals were used. Decorated pottery appears. It is concluded that these people were Sumerians.

These first settlers came from the East, but probably before the Elamite language was there used. The style of culture belonged to the whole Iranian plateau, and a plate shows the similarities of nine designs in Susa-Persia and Baluchistan. The influence on Tell Halaf is noted. The boundary between Anatolian black and red ware and the Iranian painting lay along the Roman-Parthian frontier, between Lakes Van and Urumiyeh, and northward east of Caucasia and across north Persia. The jugs with long spouts are accepted as Anatolian, extending eastward into Persia.

The Sumerians were attributed to the second culture, that of Uruk. Unfortunately the physical evidence of type is by no means conclusive as yet. An illustrated table makes plain the resemblances of types of objects in Sumer compared with the same types in the Caucasus, Syria, and Central Europe. The geographic distribution of types excludes Sumer as " the centre of dispersion," and the Caucasian metallurgy is taken as the source. The Caucasus links with Gaza are thus re-enforced. The use of bronze there by 3100 B.C. agrees with the period here assumed.

Another appendix and table of forms shows the derivations from Anatolia, in Crete, Armenia, Persia, and Hittites, belonging to the Uruk period. A fourth appendix deals with the Susa and Baluchistan pottery.

This is a most valuable outline of the questions now agitating eastern archaeology, and the use of sketches grouped to show the spread of types is particularly helpful. The whole of it needs to be used, especially in fitting fresh material into position. It is thus the most systematic and helpful work of Dr. Frankfort.

The Great Pyramid in Fact and in Theory. By W. KINGSLAND. 125 pp., 37 pls. 1932. (Rider and Co.) 30*s.*

This book embodies the Petrie survey of 1882, and the Morton Edgar measurements of 1909–13. The latter are, however, partly theoretical, and stated to two or three places of decimals beyond the facts (p. 44). Unfortunately there is here a mixture—rather a muddle—of theoretic qualities and actual measurement. The only useful course is to state the measurements alone, shutting the eyes to all theories; and when the facts are thus settled, with recognized limits of uncertainty, theories may be constructed to fit them, more or less. It is quite useless to flourish quantities running to 12 places of figures when 5 places is the limit of any workmanship or observation. Altogether there does not seem to be any notable change in the facts already stated, nor any fresh theory which can be supposed to be original. At least the author is clear of the impossible nonsense of the Davidson theories.

The Decoration of the Tomb of Per-nēb : the Technique and the Color Conventions. By CAROLINE RANSOM WILLIAMS. Quarto volume, ix, 101 pp., 20 pl. New York, 1932. Price $8.00, bound in paper.

EVEN the occasional visitor to the Metropolitan Museum is probably familiar with the decorated chambers of the tomb of Per-nēb, whose solid and monumental façade looms behind the seated Pharaohs at the right of the large main hall. An Old Kingdom tomb of the late Vth dynasty (about 2650 B.C.), the condition of its wall decoration makes it valuable laboratory material for a study of Old Kingdom technique, as the loss of the ancient surface in some places, and the failure to complete the work in others, reveal various preliminary processes.

Such a study has now been made by Caroline Ransom Williams in *The Decoration of the Tomb of Per-nēb : the Technique and the Color Conventions*, the author's name being itself notification not only that the analysis has been made with scrupulous exactitude, but equally that in its interpretation no analogous material in Old Kingdom painting has been neglected and no plausible hypothesis left unconsidered.

As the subtitle indicates, the first part of the book describes the process of decorating a private tomb of the Old Kingdom : first the filling in of joints and breaks with a coarse plaster ; next the preliminary sketch, with guiding lines and outlines of figures, objects, and hieroglyphs ; then the work of the sculptor, chiselling the outline, cutting away the background, modelling the figures, and finishing the surfaces, with an application of comparatively fine plaster at certain points to cover defects in the carving ; finally, the work of the painter, the white-wash laid over the whole surface as a base for the colours, the second preliminary sketch, and the painting itself—the grey background, the final outlines and solid colour, and the inner details. In connection with this account of procedure various problems are considered, among them the composition of mortar, plaster, pigments, and binding material, the type of brush stroke, the freedom with which guiding lines and sketches are followed, the history of "Egyptian Blue."

The second part of the book, the Colour Conventions, is a close analysis of the significance of the use of the various colours both in the figures and objects of the relief and in the hieroglyphs. Proceeding by comparisons and considerations too detailed to be fully summarised here, this section of the book will be of urgent interest to Egyptologists for the light it throws on the vexed and important question of how far colour may be relied on in interpreting objects and hieroglyphs of doubtful significance. All facets of the subject have been held up to scrutiny —certain possible physiological and psychological factors in Egyptian vision as well as the evidence of analogous examples from other Old Kingdom Tombs.

The twenty plates, of which five are in colour, restate visually the argument of the book, and the very full indexes facilitate reference to individual details.

JOURNALS.

ART AND ARCHAEOLOGY.

FIELD, H.—*Field Museum—Oxford University Expedition. Kish, I.*—Besides a statement of the course of excavation there are some useful photographs, a dagger with open-work handle, the circular mirrors of the oldest age, two chariot groups with knobs round the edge of the wheels for transit over sand, and a deer as a rein-ring standard.

KARNAGHAN, A. W.—*A Painter of Ancient Masterpieces.*—These paintings, excellent in technique, yet show how difficult it is for a modern mind quite to take an ancient frame. There is a modernity of expression in most of the faces sufficient to condemn such a sculpture as being a forgery. The better an artist is in training, the less he is able to subdue himself to show imitation. This is unfortunate if his work is held up as giving the true spirit of the original.

ORIENTAL INSTITUTE, CHICAGO.

EDGERTON, W. F.—*Notes on Egyptian Marriage.* 26 pp. 1931.—This is a discussion on the marriage laws of Egypt, particularly in the Ptolemaic period. The author's conclusions are that "in native Egyptian law, marriage was a private contract. There is no evidence that any civil or religious official participated. No written document was required. The marriage continued during mutual consent; either party could dissolve it at will, and we have no evidence that the law attached any penalty to divorce. Marriage could also be limited in advance to a definite period." M. A. M.

NATIONAL ACADEMY OF SCIENCES. XVII. No. 12.

MACCURDY, G. G.—*The Use of Rock Crystal by Palaeolithic Man.* 4 pp. 1931.—This is a short account of the rock-crystal implements of the palaeolithic period in France. They date from Mousterian to Magdalenian, and are found in three adjoining departments in central France: Charente, Dordogne, and Corrèze. The source of the crystal is probably in the region of eruptive rock near the headwaters of the Vézère. M. A. M.

SMITHSONIAN REPORT, 1930.

HOUGH, WALTER.—*Ancient Seating Furniture in the Collections of the United States National Museum.* 8 pp. 24 pls. 1930.—This paper is concerned almost entirely with stools as the most primitive form of "detached seating furniture." The beautiful illustrations give examples of American and African stools, with a few reproductions, from sculpture and painting, of stools and chairs in Mesopotamia and Greece. Though "it is very likely that Egypt must be looked to for the first great development of joinery," Egyptian stools and chairs are not illustrated. There is no attempt at giving a chronological basis to the paper. M. A. M.

JOURNAL OF BIBLICAL LITERATURE. L. II. 1931.

BADÈ, W. F.—*Ceramics and History in Palestine.*—This is Dr. Badè's presidential address to the Society of Biblical Literature and Exegesis in New York. As such it is necessarily very general in content. He deals entirely with the importance of the study of pottery in archaeology, and points out that in all countries pottery is the basis for dating purposes. At the end he gives the details of the system followed by American excavators in recording objects

found in a site, a system so detailed that it can only have originated in Germany or America, where essential facts are often obliterated by masses of unnecessary minutiae. He indicates an interesting study of the finger-prints of the ancient potters, and the method of recording them. M. A. M.

KRAEMER, C. J., Jr.—*A Greek Element in Egyptian Dancing.* 14 pp. American Journal of Archaeology. Second Series. Vol. XXXV. No. 2. 1931. —This is an explanation of the contracts between professional dancers and their customers which are not uncommon in Roman Egypt. Dr. Kraemer points out that the *crotalistria*, or castanet dancer, was a Greek institution, but that the professional dancer—either *première danseuse* or a troupe—were known in Egypt from the Vth dynasty onwards. He cites various instances, but has omitted to note the fact that men's dances, with or without clappers, are slow and stately, while the girls' dances are full of energy and activity.

M. A. M.

MAN. June, 1932.

CATON-THOMPSON, G.—*Khargeh Oasis.*—The finding of accumulated tufa deposits, from springs now extinct, has produced an important series of flint implements from Acheulian to Neolithic times. There are also three periods of gravels, of the plateau, the terrace, and the wady. It is concluded that no lake has been formed in this oasis. No trace of historic work appears before the XXVIIth dynasty. After Cairo Museum had received all that it needed, the collection was still lying in Egypt two months later awaiting Governmental permission to leave ! ! Egypt succeeds in discouraging scientific work. Meanwhile the plundering of sites by natives is rife.

RODD, F.—A photograph of trilithons in Ahaggar is given in a brief paper.

ZEITSCHRIFT FÜR AEGYPTISCHE SPRACHE. LXVII. 1931.

This volume is dedicated to Steindorff in honour of his seventieth birthday, with an appreciatory foreword by Erman.

ANTHES, RUDOLF.—*Der Wesier Paser als Hoherpriester des Amon in Hermonthis.*—In this article the vizier Paser is considered to have been high priest of Amon at Hermonthis on the evidence of a mutilated inscription accompanying the figure on the right (north) side of the entrance door to his tomb at Thebes (Gardiner and Weigall, *Top. Cat.* 106, period Seti I–Rameses II). The figure is taken to represent Paser himself, though he is not dressed as a vizier and though the titles in the inscription (*wr m³ w* of Thebes and high priest of Amonrasonther) do not occur elsewhere in his titularies, or not with certainty. There is, however, a fragment of a stela in the Vatican containing the name of vizier Paser, high priest of Hermonthis, and the writer concludes that this passage refers to Paser himself, not to his father *Nb-ntrw*, who held this office ; he concludes further that the title " high priest of Amonrasonther " refers to this office. There is, he holds, no reason for thinking that either father or son was high priest of Karnak, as has been held hitherto. Another title of Paser, found elsewhere, is Superintendent of all the gods of Upper and Lower Egypt. This high administrative post was held with occasional exceptions by the high priests of Karnak until the reign of Amenhotep III, and it returned to them in the latter part of the reign of Rameses II.

BALCZ, HEINRICH.—*Zur Datierung der Mastaba des Snofru-ini-išteſ in Dahšûr.* —A series of O.K. mastabas which were excavated by de Morgan between the pyramids of Senusert III and Amenemhat II, and dated by him to the IVth

dynasty, are ascribed by the writer to the VIth dynasty. The wall paintings in the mastaba of Snofru-ini-ištef are decisive in this later dating. These paintings are noteworthy in the history of Egyptian art and yield the earliest example of the combination in one picture of fish-harpooning and bird-catching.

v. Bissing, F. W.—*Osiris im Boot.*—This stela was found at Mitrahineh and is now at The Hague. It is without inscription, but by analogy the scene must represent the voyage by boat of Osiris after death. The stela belongs most probably to the fourth or third century.

Bonnet, Hans.—*Die Bedeutung der Räucherungen im ägyptischen Kult.*—The use of incense was not based solely on its cleansing nature; it worked on the senses. Further, incense was regarded as the odour of the gods or as divine sweat; it was connected with Horus as "*mnwr*, that is in the limbs of Horus" (Pyr. 116). Being the odour of the gods, incense was a symbol and guarantee of life, and besides conferring eternal powers it carried the dead to the gods and the celestial realms. After the O.K. the censing texts are influenced by the Osiris religion; incense was no longer divine sweat, but the "*im'h* (marrow ?) that came forth from the backbone of Osiris." Though the ritual was influenced by Osiris symbolism, its basic thoughts were too deeply rooted in ideas that were common stock for any definite cult to master it completely, so that the Osirian and solar sections are but incursions in which the general development of Egyptian religion are reflected.

Borchardt, Ludwig.—*Die Königin bei einer feierlichen Staatshandlung Ramses II.*—In a picture in the tomb of Neb-wenen-f at Dra Abu l-negga (No. 157), in which Rameses II is making the owner of the tomb first priest of Amon, the king is accompanied by the queen in an affectionate attitude. It has been supposed hitherto that such scenes were reserved for the art of Tell el-Amarna.

Evers, Hans Gerhard.—*Zum Nachleben der ägyptischen Löwen-Gestaltung.*—The influence of the Egyptian lion may be traced in Greek and Roman art. Only one mediæval school of sculpture shows acquaintance with the Egyptian style, that of the Roman *marmorari* of the twelfth and thirteenth centuries, and, above all, the workshop of Vassaletto. Some of the examples quoted are derived from Roman versions of Egyptian models, but others show direct Egyptian influence in the sideways position of the head; both types may occur on the same monument.

Grapow, Hermann.—*Die Welt vor der Schöpfung. (Ein Beitrag zur Religionsgeschichte).*—The only complete account of the Egyptian myth of the Creation is in the "Book of the Destruction of Apophis." Two sections in this compilation describe how the Sun God created first himself, then Shu and Tefnut, then the other gods and the rest of the world. Similar accounts of the "things that were not" (II *Macc.* 7, 28) occur in numerous Egyptian texts, and there are parallel accounts in Hebrew, Babylonian, Indian, Old German, and Old Nordic. These various descriptions are collected in this article, and are a striking proof of the spread and expression of ancient ideas throughout mankind.

Hilzheimer, Max.—*Die Nashorndarstellungen von Kerma.*—The rhinoceros in bone found by Reisner at Kerma is clearly a white rhinoceros, and so is probably the "rhinoceros in raw hide" also. Its accurate representation shows that the artists knew this animal well, and that it must, therefore, have been

found in the neighbourhood at this period (M.K.), though its distribution is different now.

Hölscher, Uvo.—*Erscheinungsfenster und Erscheinungsbalkon im königlichen Palast.*—The state windows or balconies from which the King rewarded his courtiers that are depicted on the walls of tombs at Thebes and Amarna are here shown to be the same structures that have been preserved or can be restored in the palace of Rameses III at Medinet Habu.

Junker, Hermann.—*Ein Doppelhymnus aus Kom Ombo.*—The late inscription dealt with in this article consists of a hymn to Suchos and of one to Haroeris; it is noteworthy for its syncretism.

Kees, Hermann.—*Die Befriedung des Raubtiers.*—There is observable in the classical period of Egyptian sculpture a marked modification in the original conception of lions as beasts of prey: lions' heads with closed jowls were used for decorating gutters on the roofs of O.K. temples. This idea of their appeasement also finds expression in religious texts and in the myths of lion goddesses: the lion sign in the name of the Thinite goddess *Mḥy.t* wears a collar, and the term (mildness) is applied to Sekhmet.

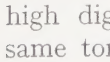
Klebs, Luise.—*Die verschiedenen Formen des Sistrums.*—There are three kinds of sistrum: (i) the naos sistrum (known in the O.K.), which is not a musical instrument; (2) the frame sistrum (M.K. only); and (3) the hoop sistrum (N.K.), both of which contain a rattle. The rattle of the hoop sistrum generally consists of three pieces formed like the snake from which the hieroglyph is derived.

Littmann, Enno.—*Bemerkungen zur ägyptisch-semitischen Sprachvergleichung.*—There can no longer be any doubt that the old Egyptian language is a disintegrated Semitic language. The grammatical constructions alone were proof enough, and a comparison of words is confirmatory.

Meyer, Ernst.—*Zur Geschichte der 30. Dynastie.*—The old identification of Nectanebes (I) with *Nḫt-nb-f* and of Nectanebos (II) with *Nḫt-Ḥr-ḥb-t* is correct. A gold coin of Tachos in the B.M. is of interest in connection with the measures taken by this king to raise funds, as it shows that this issue was for paying the Greek mercenaries.

Pieper, Max.—*Zum Setna-Roman.*—Of late this tale has been regarded as a proof of Egyptian and Greek syncretism. Though two motives in it show borrowing from the Greek, the main characters and ideas could all be derived from earlier Egyptian literature. The tale is a forerunner of the story of Faustus and it is, therefore, most desirable that the Heidelberg texts in Coptic dealing with the magician Cyprian should be published.

Polotsky, Hans Jakob.—*Zur koptischen Lautlehre I.*—The vowel of a syllable that has become the end of a word through the loss of the final consonant becomes -ε in Sah. Achm, and Subachm., but in Boh. and Fay. it becomes -ζ. The exceptions to this rule are explained.

Ranke, Hermann.—*Das Grab eines Chefs der Zentralverwaltung Agyptens unter Haremheb* (?).—Five scattered monuments with the name and titles of a high dignitary  *imn-m-in(.t)* may be regarded as coming from the same tomb at Memphis. Horemheb is indicated as the Pharaoh.

Roeder, Günther.—*Der Urzeit-Bezirk und die Urgottheiten von Hermopolis.*—A summary of our knowledge of the religious teaching at Hermopolis on the rise of light and life and of the localities in which the cult of the primeval gods was practised, arrived at from literary sources and from the work of the German Hermopolis Expedition.

Rusch, Adolf.—*Doppelversionen in der Überlieferung des Osirismythus in den Pyramidentexten.*—The parallel versions of the Osiris myth in the Pyramid Texts are due to the change in the conception of the god (from a dead to a risen god) and to the inclusion of Horus.

Schäfer, Heinrich.—*Die kupferne Zielscheibe in der Sphinxinschrift Thuthmosis des IV.*—The expression in line 5–6 of the great inscription of Thotmes IV on the Sphinx at Giza refers to the target and means "of copper." The meaning of *šwtwt* varies according to context.

Scharff, Alexander.—*Über einige fremdartige Darstellungen auf Siegelbildern aus dem späten Alten Reich und der ersten Zwischenzeit.*—A recently acquired button seal in the Berlin Museum (Inv, No. 23371) shows a monogram-like arrangement of signs, the horns of the central Hathor head being used as the fore-parts of opposed lions. A similar arrangement occurs in several other instances, including three cylinder seals and a button seal in Petrie, *Buttons*, Pl. 2, No. 129. This monogram arrangement was the Egyptian method of dealing with a foreign influence, which first showed itself in an asymmetrical arrangement of individual signs. The impulse for this foreign style must have come to Egypt from outside in close connection with the introduction of button seals; the period must have been shortly before or during the reign of Pepi I and the locality must have been the Delta.

Schmidt, Carl.—*Ein koptischer Werkvertrag.*—This ostracon concerns the hiring of one Leon as a labourer for a year by the "holy monastery of Apa Mena on the rocks".

Schott, Siegfried.—*Ein Amulett gegen den bösen Blick.*—A tablet of wood in the Berlin State Museum, inscribed on both sides with a spell against the evil eye.

Schubart, W.—*Orakelfragen.*—An attempt to reconstruct the workings of the oracle in Egypt in reply to questions addressed to it in Greek, of which many examples are known. These are written on small strips of papyrus. In one case two identical strips are known, and this was presumably the rule, one copy being kept in the temple archives. It is assumed that the strips were placed in an urn, which was sealed.

Sethe, Kurt.—*Die Türteile bnš und ʿrj.t. Zu Totb. Nav.* 125 *Schlussrede* 28–34.—In Chap. 125 of the Book of the Dead certain parts of the doors through which the deceased passed to the Judgment Hall were named after parts of the Balance. These parts are described as the *bnš* and the *ʿry.t.* In the older version of the XVIIIth dynasty they may be identified as the lintel and the jambs respectively, but in the course of time a change is noticeable which is expressed in certain modifications of the text.

Till, W.—*Zur Bedeutung der negativen n-form.*—The writer would extend Gardiner's definition of *n šḏm.n.f* (*Grammar* § 418) as follows: not only the occurrence but also the possibility of the occurrence of an action is denied.

WIEDEMANN, ALFRED.—*Neuzeitliche Fälscherkünste.*—Four of the modern fakes exposed in this article were received from Pierre Bouriant. Another is a big scarab at Toronto, also showing a French hand, *e.g., ḥm-(t)-s* for " his wife ", *i.e., sa femme.* It seems likely to the writer that the scarab published by Shorter in *J. E. A.* XVII, pp. 23 ff., is from the same source.

WILKE, CARL.—*Ein Regenzauber in den Pyramidentexten?*—The writer would translate Pyr. 236c thus : " Be thou washed, O desert. (Let) water (be there) ! Dust shall not be there." This would then be a spell for rain.

WOLF, WALTHER.—*Bemerkungen zur frühgeschichtlichen Ziegelarchitektur.*—The L.E. origin of niche architecture (see Balcz on " Die ägyptische Wandgliederung " in *Mitteilungen des Deutschen Instituts für ägyptische Altertumskunde in Kairo,* Vol. 1) confirms Petrie's surmise that the " Tomb of Menes " at Naqada belonged to Queen Neithotep. It also disposes of the theory of the evolution of the O.K. mastaba from the N.W. African dolmen. Whereas L.E. brick architecture of the early times shows a strong affinity with that of Saqqara in rhythmical arrangement of surface, U.E. brick architecture is allied to stone architecture of the IVth dynasty in its plainness of surface. The style of the IVth dynasty is a return to older U.E. ideas and signifies the final triumph of the South over the North.

WRESZINSKI, WALTER.—*Die Statue eines hohen Verwaltungsbeamten.*—This statue is in the Courland Provincial Museum at Mitau. The kneeling figure supports a stela placed obliquely so that the Sun God may read the prayer inscribed on it at his rising.

ZYHLARZ, ERNST.—*Die ägyptisch-hamitische Dekade.*—The following conclusions are reached on Egyptian numerals : Numbers 1 and 2 are Hamito-Semitic and are of very ancient relationship ; 3 and 4 are Hamite ; 5 is Hamite in use, but Hamito-Semitic etymologically ; 6–9 are not Hamite, they are homogeneous with the corresponding Semitic numbers ; 10 is Hamite. The oldest method of Egyptian counting was in fives, with the hand as a higher unit than one finger ; this is still the native method in Libyan N. Africa and S.E. thereof. At a time when the root *ʿăsar* did not yet mean 10, but still meant an indefinite quantity, the prehistoric Egyptian language had already gone over to counting by tens, supplementing the old " five "-unit system with expressions from the same trade district in which the decimal Semitic numerals developed. This individual system was already in full force when the Egyptian language passed from a spoken to a written language. L. B. E.

NOTES AND NEWS.

The name of this journal, ANCIENT EGYPT, has been extended to ANCIENT EGYPT AND THE EAST, in order to include in its scope the connections between the Near, Middle, and Far Easts in ancient times. There is no other journal which treats of the archaeology of these regions as a whole.

Professor Sir Flinders Petrie is continuing the excavation of Tell Ajjul, assisted by Lady Petrie and other workers, among whom is Mr. Wu, who has already had experience of field work with the Department of Archaeology in China.

Other expeditions which are continuing their work in Palestine this winter are those under the direction of Miss D. A. E. Garrod at Mugharet et Tabun near Athlit, of Mr. Starkey at Tell Duweir, of Mr. P. L. O. Guy for the Oriental Institute of the University of Chicago, at Megiddo, in addition to the work of the Department of Antiquities of the Palestine Government.

A year has now passed since the Ancient Monuments Act of the Government of India was amended to enable universities and scientific societies of India and other countries to excavate there—in fact, to continue the exploration of ancient sites which the Government had reluctantly to lay down owing to the prevailing financial stress. The provisions of the Amended Act are both fair to India and generous to the excavator; and it is hoped that expeditions will be organised to further the study of the ancient civilisation of the Indus valley, so important both for its relations with the contemporary cultures of Western Asia and for its influence on modern India.

It is with deep regret that we learn that 'Iraq is contemplating changes in her Antiquities Law. That law as it now stands has enabled the new State to learn and appreciate the great traditions of her country; the archaeologists of England, America, France, and Germany have, indeed, done 'Iraq good service. To the present law is due the rapid growth of the Baghdad Museum, a growth unparalleled in the history of archaeology, for the Museum was begun in one small room by Miss Gertrude Bell and is now one of whose contents any country might be proud. Through the present law, also, collections have been established in the museums of other countries, so that interest in ancient 'Iraq is becoming world-wide and will bring many visitors to that country. It would be a short-sighted policy to curtail that interest by restricting scientific investigation of such international worth. A spirit of narrowness and retrogression is to be deplored in any science; more especially so in archaeology which links the whole world together. Hitherto 'Iraq has been in the forefront of investigation; a thousand pities would it be to harass with sterile formalities those whose illuminating work has made that country one of the chief seats of archaeological study.